Implementing Total Quality Leadership in a Naval Computer and Telecommunications Activity

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IMPLEMENTING TOTAL QUALITY LEADERSHIP IN A NAVAL COMPUTER AND TELECOMMUNICATIONS ACTIVITY

by

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March, 1992

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Implementing Total Quality Leadership
In A
Naval Computer and Telecommunications
Activity

by

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ABSTRACT

The way that Total Quality Leadership (TQL) is implemented is unique to each command implementing it because it must be tailored to the command. However, some types of problems and pitfalls are more common than others. This thesis presents a case study of the implementation of TQL at one Naval Computer and Telecommunications Activity based on personal interview and command documentation. The implementation of TQL at this command is compared with a change process model and analyzed against it. Recommendations for corrections and alternative courses of action are provided.

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ACKNOWLEDGEMENTS

I would like to thank my loving husband, Phillip, for his support and kindness.

I. INTRODUCTION

A. BACKGROUND

The United States Navy is implementing Total Quality Leadership (TQL). The Secretary of the Navy and the Chief of Naval Operations have both published message traffic and articles in publications like Proceedings magazine to explain what it is. Most sailors, officer and enlisted, remain puzzled about exactly what it is that they are to implement. Even in the midst of this confusion, orders go out to implement.

On 01 July 91, the Naval Computer and Telecommunications Command published an instruction, Appendix A, with the stated purpose of implementing "...policy for TQL within the Naval Computer and Telecommunications Command (NAVCOMTELCOM) and its field activities." The instruction requires the field activities to submit quarterly reports documenting TQL accomplishments and points out that the current status of already existing programs and "...other TQL accomplishments..." is reportable under this new instruction. Included as an enclosure to the instruction is a "How To Manual" for TQL. The manual explains TQL terminology, describes the structure of the TQL organization and the composition and responsibilities of its components. Prior to publishing the instruction, most commands under NAVCOMTELCOM

(NCTC) were already cognizant of the fact that TQL was coming and some had begun taking action to implement it as best they could but, with the publishing of this instruction, TQL had officially come to NCTC.

At the time that the instruction was published, the only Navy-produced training that was available was the Senior Leaders Seminar offered at Monterey, CA and Washington, D.C., to Flag level and O-6 (Captain) level officers. Within the NCTC claimancy, most of the Commanding Officer (CO) and Executive Officer (XO) billets are O-5 (Commander) and below. There were some billets that were classified as O-6 billets for NCTC's major ashore establishments but since training of Flag level and senior Captains at headquarters levels took priority, NCTC Captains were often unable to obtain seats in the seminar. As a general rule, the only training available for anyone was through civilian contractors listed in the Federal Supply Schedule. Many CONUS (Continental U.S.) NCTC commands chose that route to learn about TQL and gain knowledge on how to implement it.

B. OBJECTIVE

This thesis will look at the implementation of TQL at one NCTC activity and attempt to analyze actual events in the implementation process with respect to the TQL change process. As background for this analysis, the intent and potential of the TQL philosophy and organization will be examined as it

relates to NCTC activities and the TQL change process will be studied as it relates to the theory of organizational change.

The case study was developed using command documentation and 21 personal interviews from an actual NCTC activity. Personnel participating in the command's TQL organization were interviewed for approximately one hour each. Each interview was conducted privately and respondents were guaranteed anonymity. Interview protocol is provided in Appendix B.

Limiting factors in the research included limited study time at the command and an inability to return for follow up study due to limited funds and time. While further study may have changed the construct of some details, I do not believe that significant changes would have been made to the overall analysis.

This thesis will examine the TQL philosophy and organization in academic terms but assumes the reader has been exposed to the basic concepts and tools of TQL. My ultimate goal in writing this thesis is to provide those in command, who have been unable to obtain formal TQL training or military case studies for review, with a vehicle for learning and an aid in the implementation of TQL at their own command.

II. TQL?

Total Quality Leadership (TQL) is a management philosophy that uses the tools of Statistical Process Control (SPC) to improve the quality of the product. That sounds simple and direct but when it comes to implementing TQL most are not sure what to do. More importantly, most are not sure why or how TQL can be applied given our rapidly changing environment.

A. SYSTEMIC CHANGES VS INCREMENTAL CHANGES

Changes are sweeping through the military. Bases are closing, units are being decommissioned, and budgets and manning are being reduced dramatically. Our mission is changing to one in which military units, especially Naval forces due to their mobility and visibility, must be able to respond to a variety of situations in a variety of different ways. Units will be required to work together more and have the ability to reconstitute forces as required. [Ref 1]

The Navy will and is responding to these systemic changes by forming task forces to investigate alternatives and recommend ways of dealing with the changes in order to meet the new mission. Use of a task force to resolve issues resulting from systemic change is not TQL [Ref 2:p. 11]. The use of TQL comes into play after we have dealt with systemic

change because TQL is an incremental or evolutionary approach to process change. TQL is an incremental approach to change because changes made under TQL are made to steps in a process only after a systematic and thorough examination of the individual process as a part of the system. [Ref 3]

After sweeping changes are made to budgets, manpower, and assets, individual units will still be required to accomplish their missions but they will have to do it by making the most of their remaining assets [Ref 4]. In order to do that, a focus on total quality is required. A total quality effort involves close examination and evaluation of processes in order to identify ways to reduce variation in production and, thus, reduce costs [Ref 5:p. 334]. A total quality effort is an incremental approach to quality improvement requiring that personnel involved in the examination of the processes be able to communicate, interact with one another and make decisions as a team, and these types of behavior are not the norm in a bureaucratic organization.

B. THE BUREAUCRATIC ORGANIZATION

Characteristics of a bureaucratic organization are central control, task specialization, functional grouping and coordination by means of rules and regulations [Ref 2:p. 6-7]. There are distinct advantages to having these characteristics.

First, with central control, mission definition and accomplishment is straightforward because the key administrative and configuration decisions have already been made for all units at some central level. Second, task specialization makes overall performance more predictable and reliable. Third, grouping people by function or specialization capitalizes on economies of scale and permits greater diffusion of innovations within the specialty. Lastly, coordinating work through rules and regulations means that decisions all have the same decision base and values, therefore, we all tend to perform and think, basically, in the same predictable manner and face to face communication is not required in order to accomplish the mission. [Ref 2:p. 6-7]

These advantages are what makes the military organization successful during war time. Centralized control means that fewer decisions are required on the front lines and mission accomplishment can be concentrated on. Grouping by function enables the diffusion of experience in battle. Task specialization enables the organization's regeneration due to catastrophe. And rules and regulations enable us to understand how units will coordinate with one another even without face to face contact. [Ref 2:p. 6-7]

Disadvantages of the bureaucratic organization include underdeveloped face to face communication skills, poor interaction and communication across functional boundaries due

to rivalries, assumptions and beliefs about other groups, and limited group problem solving skills. [Ref 2:p. 7-9]

Despite the disadvantages of a bureaucratic system, we want to keep our current organizational structure because of its inherent advantages in achieving the fundamental military mission. However, we need to overcome its disadvantages in order to instill total quality into the organization and improve process efficiency. The TQL organization creates a bounded time and space for the learning of face to face communication skills, functional group interaction and group problem solving skill development so that continuous process improvement using Statistical Process Control (SPC) can become a way of life.

C. THE TQL ORGANIZATION

The best explanation of what TQL is and how it is supposed to work may be provided by an example of how it could be applied in a Naval Communications environment.

1. Executive Steering Committee

The Executive Steering Committee (ESC) is formed to provide the focus for the organization and develop strategic plans. Its membership is comprised of key members of the command who would be expected to be a part of strategic planning for the command [Ref 6:p. 5]. At a Naval Computer and Telecommunications Station (NCTS) membership might include

the CO, XO, all Department Heads and Officers-in-Charge (OIC), and the Command Master Chief Petty Officer (MCPO).

One of the first things that the ESC must develop to provide the focus for the command is the command mission statement. A good mission statement is something that can be clearly understood and related to by all members of the command [Ref 6:p. 10]. Since a mission statement is supposed to provide command members with a guiding vision, it should also be one that is easily remembered and referred to [Ref 7:p. 119]. A mission statement alone, however, may not be enough to help guide the actions of command members, especially in terms of decisions that impact on the command's future. The ESC should also develop a vision statement and guiding principles to further define and support the mission statement. A vision statement defines what the command will look like in the future [Ref 8]. Guiding principles add value to the mission and vision statements and help personnel to identify with them [Ref 7:p. 104].

With this complete package, all decisions can be made with the confidence that they are being made in full support of the command's mission regardless of the type of decision and who is making it. This doesn't mean that a Third Class Petty Officer would be capable of making command decisions. It does mean that a Third Class Petty Officer who understands and remembers the command's mission statement is more likely to make decisions while on watch that are more likely to be in

concert with the command's stated mission and guiding principles.

At an NCTS, the mission statement might be something like this:

> To provide rapid, reliable and secure communications and information processing systems to our customers by:
>
> - fostering teamwork within our organization and with our customers.
> - maintaining our equipment and personnel in a high state of readiness.
> - enhancing the quality of the lives of our sailors.

A vision statement could be incorporated into the mission statement or it could stand alone. A vision statement could read like this:

> To provide our customers with one source for all their communications and information system needs through technological integration.

To support the above mission and vision statements, the ESC could develop guiding principles like the following:

- We are committed to developing our customers' understanding of the capabilities of the Navy's Communication System so that they may gain maximum benefits from its use and the highest quality product possible.
- We will treat our customers and each other with courtesy and respect. Our aim is to build an attitude of service and a reputation for excellence.
- We believe that our equipment are tools that enable us to provide a quality product and are committed to providing the best tools possible to meet our customers' needs through a quality oriented preventative maintenance system.

- We are committed to improving message production processes and capabilities in order to ensure reliable communications for our customers.
- We are committed to developing our personnel to the highest extent possible by providing education and training.
- We recognize that shift work can be difficult on our sailors and their families and are committed to balancing off-shift duty requirements against the needs of the Navy and the best interests of our sailors.

With this kind of guidance, an RM3 on watch in the Message Center could readily determine what course of action to take when messages on a customer's diskette are formatted incorrectly because the command's focus toward the customer would be clear. The supervisor would clearly understand the importance of providing education to the customer to prevent continued suboptimal use of the system. And the Division Officer would know the importance of working with customers to set up a mechanism for continuous customer training to fill information gaps created by normal personnel rotations. Each individual in the chain of command would understand clearly how their actions support the command's mission.

The ESC's responsibilities also include developing the strategic implementation plans for TQL [Ref 9:p. 43]. Many factors must be considered in the implementation of TQL. Some of these center on tailoring the structure of the TQL organization to the individual command, personnel training sequence, conflict resolution guidelines and participation requirements. Their role in process improvement focuses on

interaction with the customer to determine the customer's needs and then translate those needs to set specification limits.

To set the stage for further explanation, the database in a Limited Digital Message Exchange (LDMX) at an NCTS provides the communication system with constant on-line routing information for all naval ships and activities and other customers. Although routing changes can be made throughout the day on a temporary basis, at new radio day changes and updates must be incorporated in the database on a more permanent basis. Often there are problems with this update. Sometimes errors or other problems cause the run to be late causing updates to be late. This may not sound like much but getting message traffic to ships at sea is often critical to the safety of the ship or security of our nation and if the routing for that message traffic is not correct then delivery of the messages may not be as timely as necessary. Since the routing of messages is affected by the update, the update itself is considered critical.

Specification limits would be set by the ESC working with the customer to identify acceptable limits on the quality of the product. ESC members would sit down with the customer and determine what the customer needs from the process. Those needs would then be translated into specifications of acceptable quality for a process [Ref 6:p. 5]. The most obvious customer in our NCTS/LDMX database case would probably

be ships at sea but a less obvious customer might be the Command VDT operator who is depending on the database update to formalize local changes made earlier. A significant stakeholder in the correctness and timeliness of the process is the Service Clerk, who must redirect (redirect translates to rework) messages for ships whose updates were not done on time or done correctly. These are the types of internal and external customers from whom information would be obtained by the ESC to set customer specification limits. In this case, it might be more appropriate for the ESC to work with external customers and the Quality Management Boards (QMBs) to work with internal customers.

D. THE QUALITY MANAGEMENT BOARDS AND PROCESS ACTION TEAMS

1. QMB Responsibilities

The QMBs are comprised of the owners of the processes that produce a product. Their function is to identify those processes that are critical to the production of a quality product. Once they've identified those critical processes, they must determine which process to study in order to begin improving the quality of the product. Once those decisions are made they must also determine how to measure improvement of quality in the product so that the effectiveness of actions taken on the process can be judged. [Ref 6:p. 6]

One of the first steps in our LDMX database case would be to set up the QMB. The membership of a QMB owning the

process for updating the database might be comprised of the LDMX Officer, the Computer Center Supervisor, the system's Technical Representative, the Senior Communications Watch Officer (CWO), the Message Center Officer, and the Operations Officer. The QMB would first identify all of the steps involved in the update process and then identify those steps or factors that are critical to the correctness and timeliness of an update. Errors in the update or excessive time to complete the update is recognized as symptomatic of underlying causes that are either the result of a significant event or are inherent in the system.

2. QMB Interaction With PATs

The QMB must select individuals to serve on a Process Action Team (PAT) that will collect the data relevant to an identified critical process that will be the basis for decision making [Ref 6:p. 6]. The QMB and PAT members work together to identify variables in the process that can have the greatest effect on quality. Before the PAT can be sent out to collect data, the QMB must specify ground rules for interpreting data collected, identify time limits on the PAT's existence, set customer specification limits or other necessary bounds. This information could be provided to the PAT as a part of the PAT's charter. The PAT then begins the collection of process data, the data is summarized to present

the current status of the process and that information is presented to the QMB by the PAT. [Ref 6:p. 11]

To apply this to our LDMX database, a PAT is appointed by the QMB to monitor the critical steps in the update process and is formed by personnel who actually perform updates or otherwise have a role in the critical steps. Candidates for the update PAT might include the computer operators, command VDT operators, service clerks, and CWOs. The PAT would be provided with a charter that specifically directs how data is to be interpreted and presented. In other words, the charter might specify that a specific number of repetitions of a certain type of error in the update run (compiling and sorting by the LDMX) should be considered significant and should be reported or that failure to pick up individual unit's database changes for certain types of reasons should be reported. Those steps critical to the process would be monitored by the members of the update PAT to yield data from which initial process status is determined. Once data is collected the update PAT can present the data in accordance with the guidelines provided in their charter to the QMB.

3. Data Collection

The data collected will indicate whether the process is in statistical control or not. This means that the process is predictable or it is not. A process is predictable when variations in the factors determining quality are within

control limits. The process is unpredictable when variations fall outside of control limits. Control limits for all factors are set at plus or minus three sigma deviations from the mean by statistical convention [Ref 5:p. 318-321]. The evaluation procedure for determing the status of a process is illustrated in Figure 2.1.

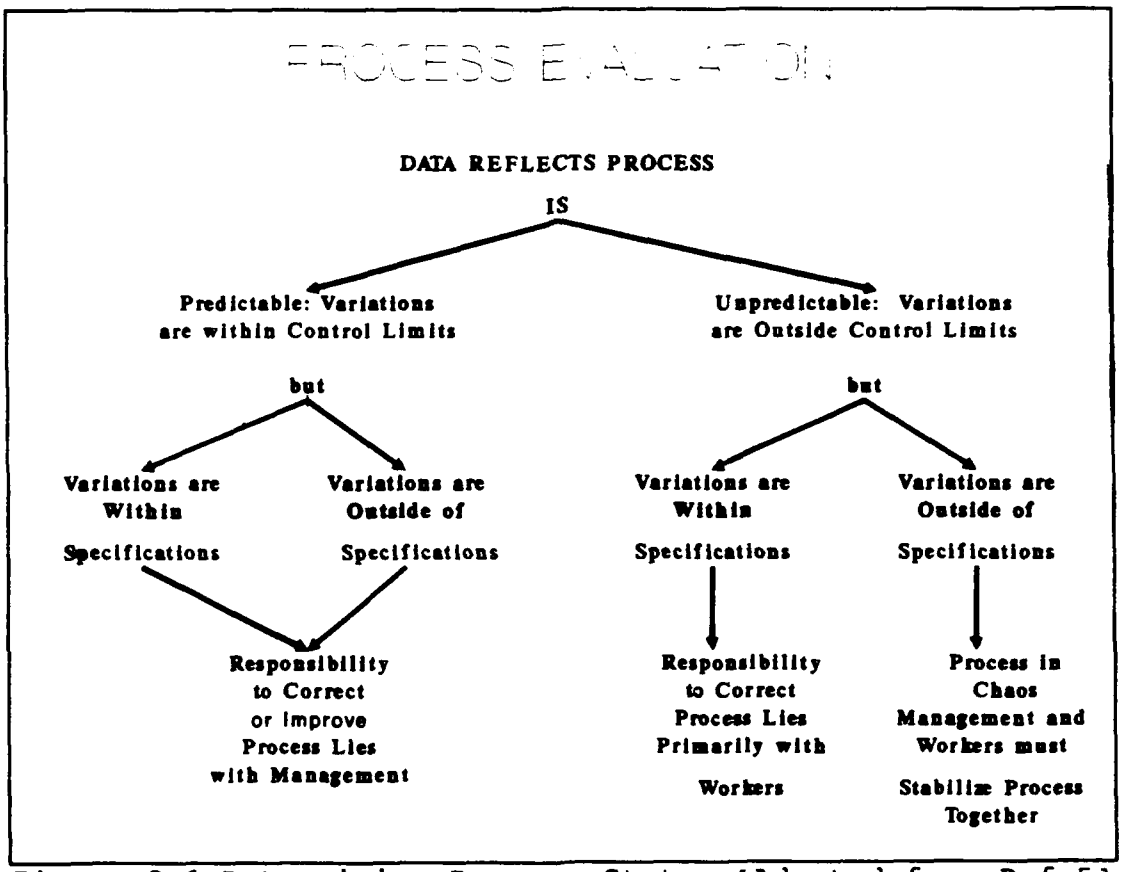


Figure 2.1 Determining Process Status [Adapted from Ref 5]

a. Process Not in Statistical Control

If the process is not predictable, variations are a result of special causes or significant events. Variations in the factors determining quality may be within customer specifications (as determined by the ESC and the customer and translated into specifications by the ESC and the QMB) or not. Even if variations are within customer specifications, special causes of problems must be removed so that the process can be brought back within statistical control or made predictable before attempts can be made to improve the system. PATs or personnel otherwise involved in the process are usually capable of removing special causes. [Ref 5:p. 309-324]

If the process is not statistically predictable and variations are also not within customer specifications, the process is in a state of chaos and both management and workers must work together to bring the process under statistical control by first eliminating special causes to problems. Removal of the special causes of variation only brings the process back into statistical control. [Ref 5:p. 309-324]

b. Process Within Statistical Control

Once the process is predictable, it is management's responsibility to correct or continually improve the process. The difference between correcting the process and

continually improving the process is significant as this entails meeting or bettering customer specification limits. If the process is predictable and variations in the product fall outside of specification limits defined by the customer, then the process requires correction. Correction of the process implies correction of a problem and that correction is management's responsibility because these types of problems are attributable to the process. The QMB must systematically identify steps in the process for improvement and following the Plan-Do-Check-Act Cycle (PDCA), as explained in Figure 2.2, implement changes to reduce variations. [Ref 5: p. 309-324]

When the process is predictable and variations fall inside of specification limits then continuous improvement is called for. The QMB must determine the potential for improvement in the process and tighten specifications accordingly. Continuous monitoring over time may reveal patterns or trends that indicate areas for improvement and continued application of the PDCA Cycle. [Ref 5:p. 309-324]

c. Data Analysis

The intent of all this statistical monitoring is to reduce variations in the end product caused by special or significant events and then reduce variations caused by things inherent to the system. The PAT is responsible for compiling

PLAN-DO-CHECK-ACT

PLAN PHASE:

--Identify what is to be improved
--Plan what changes might lead to improvements
--Decide what data are needed
--Determine how, when , and by whom data will be collected

DO PHASE:

--Gather baseline data to determine where we are
--Make planned changes
--Gather data to determine what happened after the changes

CHECK PHASE:

--Determine whether changes led to improvements
--Compare results of changes with what was planned

ACT PHASE:

--Determine which changes should be implemented
--Make the appropriate changes
--Educate the work force to the changes
--Assess application to other parts of the organization

Figure 2.2 The Plan-Do-Check-Act Cycle
[Adapted from Ref 10]

and formatting the data collected and presenting it to the QMB once a significant amount of data is collected in accordance with PAT's charter. [Ref 6:p. 6-7]

In our LDMX/database case, any update requiring time outside of upper or lower control limits, as set by a three sigma deviation from the mean, is examined by the update PAT for the special cause behind its variation. One type of special cause may be late receipt of updates from the Master

Database (a crucial element in the update process). While this special cause would not be within the update PAT's authority to correct, other special causes would be. Those within the update PAT's authority would, of course, be corrected and monitoring would continue. As special causes are removed, the process becomes predictable and compliance with customer specifications can begin to take priority.

Variations in the update process are examined to see if the variations are within customer specifications. If variations are not within customer specifications, the QMB must examine the process more closely. At this point, variations are caused by the system and only close study of the system will reveal areas for improvement. [Ref 6]

The data collected by the update PAT could reflect variations occurring at one particular step in the process. It could be that local changes to the data base are not being incorporated into the updates consistently. How those local changes are entered into the update run would need to be examined for potential improvements and monitored through further data collection. When the data reflects the cause of the problem over time, a change can be instituted to correct the cause of the problem. The cause could be a simple flaw in the Standard Operating Procedure such as who the local change is passed to for incorporation into the update run once it is made at the Command VDT. With a simplification in the flow of the paperwork, the update process could become more accurate

and efficient and if further data collected reflects a reduction in variation then it is appropriate to modify the process formally to make the change permanent. Standard Operating Procedures for the update could be changed and Job Qualification Requirements for the update task modified to reflect the different procedures.

Even if variations are within the customer specifications, data collected by the update PAT may reflect trends or patterns in the variation over time that might signify an area that could be improved in the process. Care must be taken, however, to not change a process without good reason and good reasons are those that have a foundation in data rather than intuition. [Ref 5:p. 317-320]

Improvements to the process do not stop with one improvement or just because the process meets customer specification, the update PAT continues to collect data and the QMB and the update PAT continues to look for trends or patterns in the statistical data signifying other common causes to variations in update times. As variations in update times are reduced, specifications can be reduced. Data collection is continued and the improvement process continues.

At this point it should be apparent that communication, work group interaction and teamwork are necessary within the ESC, the QMB, the PAT. It is top management's responsibility to nurture an atmosphere conducive to the development of communication, cooperation, and teamwork

within the TQL organization and provide leadership so that improvement efforts are supported throughout the command.

III. THE CHANGE PROCESS

A. STEPS IN THE CHANGE PROCESS

Just because an organization needs to change doesn't mean that the change process will automatically begin [Ref 7: p. 2-4]. The change process is actually triggered when top management makes the decision to cope with uncertainty by managing change [Ref 11:p 150]. The change process is a critical path leading towards developing a cycle of commitment, coordination and competence. Steps in the change process are as follows:

1. Mobilize commitment through joint diagnosis of current situation.
2. Develop a shared vision.
3. Foster consensus for the vision, skills to build it and constancy of purpose.
4. Spread revitalization throughout the organization without directing it.
5. Institutionalize revitalization.
6. Monitor revitalization efforts and adjust strategy as needed. [Ref 12]

B. PARALLEL LEARNING STRUCTURES: A MECHANISM FOR MANAGING THE CHANGE PROCESS

A parallel learning structure is one mechanism that can be used to manage the steps in the change process outlined above.

A parallel learning structure is a separate organization that is a microcosm of the primary organization functioning in parallel with the primary organization [Ref 2:p. 121]. It consists of a steering committee, small groups with their own norms and operating procedures (culture), and a climate conducive to innovation, learning and problem solving. The purpose of a parallel learning structure is to provide a bounded time and space to observe, exercise and learn new behaviors. As the parallel learning structure is linked to the primary organization, use of the new behaviors in the primary organization begins to occur thus transforming the primary organization. [Ref 2:p. 9-12]

1. TQL as a Parallel Learning Structure

The TQL organization is a microcosm of the command organization and is designed to operate in parallel with the command's organization. It is not designed to replace or supplant the command organization. The TQL organization consists of an ESC, QMBs, and PATs representing collateral levels in the command organization. It is important that each of these groups within the TQL organization develop their own identity, operating procedures and norms because they will have to support a climate that is different from that of the command [Ref 2: p. 49]. The desired climate is conducive to resolving problems in previously untried ways (innovation), learning new skills (interaction and communication, group

decision making or teamwork, and Statistical Process Control (SPC) based decision making skills), and their purpose for existing is to improve quality by reducing variation or problem solving.

C. MANAGING CHANGE USING TQL

1. Mobilize Commitment Through Joint Diagnosis of Current Situation

The ESC is the group that is responsible for strategic planning [Ref 9:p. 43]. The first logical step in strategic planning for any organization is to assess the current situation. What is happening? What forces are demanding change? How do those demands effect the organization? Answering these types of questions as a group will give the members of the ESC a common understanding of their organization's current situation. Building of the common understanding as a group builds commitment to the analysis [Ref 12]. As a core group, the ESC develops the recognition of the need for change and becomes committed to seeing the change process through, Critical Mass is achieved. Critical Mass is required before proceeding in the change process. [Ref 5:p. 86]

2. Developing a Shared Vision

A vision statement defines what an organization will look like in the future and has guiding principles to support and further define it [Ref 8]. An organization's vision

statement and guiding principles are developed by the ESC as a group. Again, by developing the statement and principles as a group, commitment to the statement and principles are built [Ref 2:p. 114]. Commitment to the vision and its principles are necessary if top management is expected to support them, teach them and lead by them.

3. Foster Consensus for the Vision, Skills to Build it and Constancy of Purpose

It is at this point that the remainder of the parallel organization can be developed and roles defined. The TQL organization should have a stated purpose for existing so that all understand the reason for its existence and members of the TQL organization can fully appreciate their own roles in the organization. [Ref 2:p. 127]

Just creating a parallel TQL organization does not mean that it will function as intended. New skills or competencies need to be developed to make it work. The new competencies that will be needed include communication, the ability to interact, and group decision making skills to facilitate teamwork [Ref 2]. Developing teamwork is essential to the development and use of SPC or Profound Knowledge [Ref 5]. Communication and team building skills will help break down barriers that are a result of rivalries stemming from functional grouping and task specialization [Ref 2:p. 54]. Development of Profound Knowledge is the basis for future

decision making by the groups within the organization and, therefore, basic to their purpose.

Management is required to support the parallel organization because participation in TQL will require time for training for the new skills, time to learn how to apply them, and time to apply them in the group setting. Because the members of the TQL organization will be learning to apply skills that are not accepted within the command organization, support will also be needed in the form of encouragement and sometimes intervention between the command organization and the TQL organization [Ref 2:p. 50-52]. When TQL is in the early stages of implementation, management will need to provide guidance in the application of TQL. Initial projects should be small, time bounded, and fairly certain of success [Ref 9:p. 52-53]. This will increase the probability that the primary benefit from these projects will be learning to use the new skills and procedures in problem solving [Ref 2]. Management will need to ensure that successes from these projects are very visible to provide encouragement to participants and to help in overcoming skepticism in the organization.

4. Spread Revitalization Throughout the Organization Without Directing It

Just as top management's commitment was developed through participation in the diagnosis of the current

situation and through participation in the development of the vision, commitment to TQL must be developed in each department. Membership in each department must develop their own understanding of how they fit into TQL and how TQL fits into their department. Because understanding cannot be directed, each department must struggle on their own to come to the understanding. In other words, top management should not direct how the TQL organization will be used in any particular department only that it be used and the use will force the learning of the new behaviors. Top management should not direct how SPC should be applied but that decisions must be supported by data thus forcing Profound Knowledge to be learned through use at all levels within the organization. Each department can then come to grips with the actual application on their own.

5. **Institutionalize Revitalization**

As TQL is applied, the organization will be forced to examine the roles of personnel and internal structures and systems. Management must be open to re-examining, and modifying or altering the command's organization to make support for change more permanent [Ref 2]. In order to stop supporting the belief that quality can be inspected into the production of a product, management may have to direct that mass inspection will cease and work with Quality Assurance Divisions to redefine their role in the production process.

New policies may need to be developed such as eliminating the practice of awarding contracts solely on the basis of price and new criteria for awarding of contracts developed. Leadership will need to be instituted in the place of meaningless slogans and work quotas. [Ref 5]

6. Monitor Revitalization Efforts and Adjust Strategy as Needed

Top management cannot just put the TQL organization in place, support it and expect things to continue without change. Use of the TQL organization will cause behaviors inside of the TQL organization to change and as linkage between the TQL organization and the command organization occurs, behaviors within the command organization will begin to change [Ref 2]. Top management must constantly and forever evaluate progress and make changes to the implementation strategy as the organization adapts [Ref 12]. This should be done by the ESC in order to maintain a high level of commitment to the evolving strategy for continuous improvement.

D. THE ROLE OF LEADERSHIP IN THE TQL CHANGE PROCESS

With TQL, top management of the command organization are obliged, as they have always been obliged, to provide leadership to the command and, now, to the parallel structure they have created. They must demonstrate commitment to the new structure and its purpose. It is not enough to just mouth

the words. Commitment must be genuine and visible because top management must be able to drive out fear from the organization, in particular, fear of reprisal and fear of failure [Ref 2:p. 134-135]. Interaction between functional groups must be required in order to break down barriers between departments [Ref 2:p. 140]. The use of new competencies must be rewarded in order to build an acceptance and eventually a requirement for their continued use [Ref 12]. Top management must be able to provide support in the form of resources for the TQL change effort [Ref 2]. This will require funds for training, time, and people in a period when all are in short supply. It will be necessary to exercise leadership so that these are understood to be investments in the organization's future [Ref 5].

Most commands have seen change programs come and go building more skepticism with each failure. Few have seen a successfully managed change program and the biggest impediment to change is what we have learned before about change [Ref 2:p. 142]. In order to overcome this skepticism built over the years, top management must establish its credibility and, in order to do so, they must adopt the new philosophy, behaviors, and competencies as their own. By embracing them as their own and using them, they will be able to recognize them in others and reward and promote those who have also adopted the philosophy and the behaviors and who use the competencies. [Ref 12]

Lastly, top management must understand that changes in the organization will take time. Expectations that are too high will create problems by pushing the parallel structure, and the command, too quickly toward changes to which they are not committed. Few people, top managers included, are able to imagine things that they have not already experienced [Ref 2:p. 142]. If, however, top management adopts and applies the philosophy, the behaviors and the competencies as their own, they will be better able to envision how they can be applied and expectations will be more realistic. This understanding leads to greater commitment.

IV. NCTS CONUS

Naval Computer and Telecommunications Station (NCTS) CONUS came into being with the merger of the Naval Communication Station (NCS), CONUS and the Naval Regional Data Automation Center (NARDAC), CONUS in October 1990. With rapid changes in both telecommunications and automated information systems bringing the two technologies closer together in function, the marriage of the two commands was a logical evolutionary step. Combining the two commands would allow for the initiation of certain efficiencies. One such efficiency was a manpower reduction achieved by eliminating functional billets common to both commands.

The most obviously common billets to both commands were those of Commanding Officer (CO) and Executive Officer (XO). NCS CONUS had been traditionally structured with a CO and XO. The NARDAC had a CO and the second in command was called a Technical Director (TD). Both command suites had special assistants and subordinate Department Heads. With the merger, the new CO of the NARDAC became the CO of the NCTS and the former NCS CO became the new command's XO. The TD retained a position comparable to his previous billet while the NCS XO became a department head. Figure 4.1 reflects the structure of the new command.

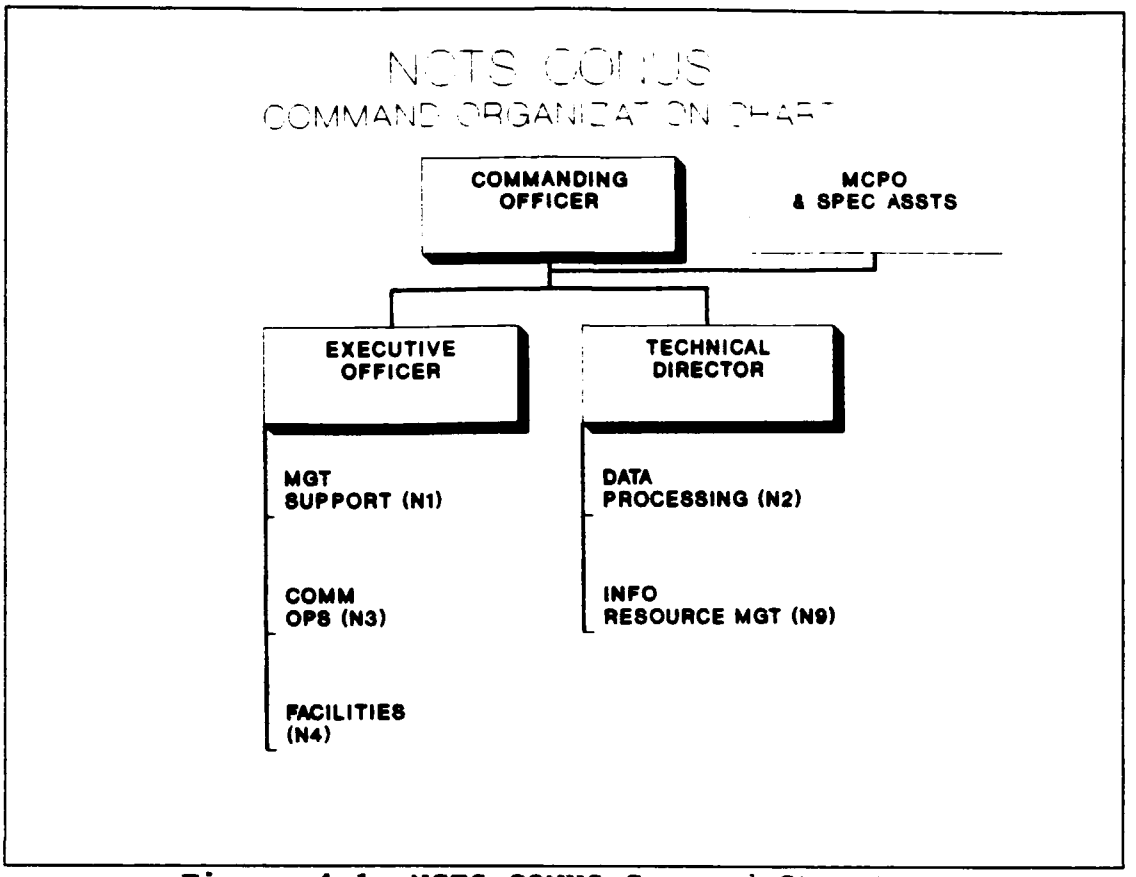


Figure 4.1 NCTS CONUS Command Structure

A. DIFFERING MISSIONS

The new structure reflected a functional split in the organization that remained as a lingering reminder of the differing missions of the NARDAC and the NCS. The NCS was responsible for providing telecommunications services to ships afloat, aircraft aloft, and commands ashore. The NARDAC sold batch processing services, information systems technological expertise, and information systems management expertise primarily to ashore commands. No apparent effort was made to merge the missions of the two commands or to help management

and supervisory personnel in both commands understand and accept the merger as a merger of technologies and missions vice a cost/manpower reducing measure:

> We're tactical over here (at the old NCS). We don't make money. (The) Projects looked at first are ones that make money.
>
> (There's a) major conflict. It's missions. One side of the house is worried about lives and the other side is worried about money.... There are a lot of issues and animosity with the merger. One side of house feels absorbed. All the rules and regulations changed to reflect what the other side was doing. My own point of view is not so great.... We're (military members) looked on as free labor.

The command remained, in effect, two different commands with two different missions required to share a single Administrative Department, Facilities Department and Command Suite.

B. FUNDING DIFFERENCES

Within NCTS CONUS there existed two different methods for funding operations. The NCS had been mission funded whereas the NARDAC was required to use the NIF or Navy Industrial Funds accounting method. The NCTS applied both funding accounting methods.

1. Mission Funding vs. NIF

Under mission funding, a command is just given a lump sum of money for operating expenses. The general rule of thumb under this type of accounting is to simply spend all funds provided. While that may sound wasteful and had no

doubt been in the past, recent lump sums provided for operations had fallen well below desired figures forcing cutbacks and efficiencies. Under NIF, an activity must "sell" its services to another command or activity and charge enough for those services to cover costs incurred. Essentially, jobs are costed according to material and labor required, therefore, any personnel time not spent in revenue producing activities is considered revenue lost. The goal under NIF is not necessarily to make a profit but to break even. Theoretically, this requires a more businesslike approach to the management of funds.

With the merger, both funding methods were used depending on the department or activity funded. Those departments that had come from the NARDAC and were under the TD's control remained NIF funded. In the XO's charge were two departments from the NCS that used a mix of NIF and mission funding and one department's funding remained mission oriented. While on the surface this may not appear to present itself as a problem, it did lead to some resentment.

2. The Effects of the Different Accounting Methods

Some personnel in the mission funded departments, primarily manned by military personnel from the old NCS and located in Building 506, came to feel that they were seen only as free labor for the NIF departments:

> We're all one command but that's a misnomer. It's 'Us vs Them' philosophy as far as funding. It means the military gets jerked around and we do the manual labor.
>
> It all stems from how people get paid. They're (Building 919) run like a business and you try not to run in the red. Ideally, they're supposed to have zero bottom line. This past year, we (NCTS) were one of few (NCTS activities) that made money and everyone else is seriously in debt. They're NIF and we're OM&N. On the other side of the street (Building 919), the people charge for everything they do but if they use us they get value for our service but we can't charge them. For example, the second deck at NAVSUPCENTER (Naval Supply Center) needed rehab and it belonged to NARDAC. A group of people from (Building) 919 were moved out and we had to fix up 10,000 square feet. We said it was stupid and a lot of money, a lot of manpower but the bottom line was we were free military to accomplish the job and we would provide that service. In October of 1990 that area did not just suddenly need work. It had needed it for a long time. When the merger was happening the people at (Building) 919 let the project go until the merger then instead of contracting for the job they had us do it and our jobs had to stop because it took priority. We should never have been tasked for it.

On the other hand, NIF departments, being primarily manned by civilian personnel from the old NARDAC and located in Building 919, resented the mission funded departments' flexibility in adjusting work schedules. One example of this that was cited was attendance at the command picnic. Military personnel simply ensured that duties were covered by personnel on the watchbill and all others that could be spared were excused to attend. Civilian personnel were required to take annual leave in order to attend the picnic since it was held during a normal workday for some.

The difference in funding methods created the impression in one Department Head's mind that civilian

personnel in the departments funded under OM&N or under mixed funding were being treated unfairly:

> Look at the POD (Plan of the Day). It says congratulations every two or three weeks to people on the (Building) 919 side of the house. I have put in changes to two PDs (Civilian Position Descriptions) in the past year. Those PDs have not moved because we're OM&N funded and we're being paid different. Their counterparts (civilian workers) at (Building) 919 are doing the same work but because we're OM&N, there's no change (upgrade) in the PDs. I know of cases in that side of the street where people were promoted in the past year. People over here see that.

The division in funding was also perceived as guiding how decisions were made:

> They (CO, TD and other Department Heads) are concerned with their building, their UPS (uninterrupted power supply), their generators 'cause they loose big money (if the equipment breaks). If ours breaks there isn't the push to fix like there is when one of their toys breaks. Consequently, there are a lot of crisis projects from (Building) 919. We have to look at fact that if their system is lost they'll loose money whereas here it's just some ship or aircraft without a system. For those of us who've been there that is a big deal. You can't get in your car on a ship or aircraft and drive away. They can't get away but it's not looked at a priority 'cause of the money. It's a philosophy of business.

This division in funding methods did little to cement the merger and, instead, seemed to heighten the effect of not having a single mission for entire the command.

C. THE TQL ORGANIZATION

The CO of the newly formed NCTS CONUS had been previously assigned to a command that had begun instituting Total Quality Leadership (TQL). Because of his experience with TQL and his belief that eventually it would become a mandatory program

throughout the Navy, the CO decided to begin implementation of TQL at NCTS CONUS. A brief, chronological listing of events in the implementation process can be found in Appendix C.

1. The QPIC

The Quality/Productivity Improvement Council (QPIC) was designed to act as an executive steering committee for the command providing for the strategic planning for the implementation of TQL within the command. Its membership included the CO, XO, TD, Department Heads, Command Master Chief and the TQL Coordinator. It was supposed to meet approximately once per month and, although there were no provisions to rotate the chair, it was in effect rotated amongst department heads in the early stages due to the occasional absence of the CO and the XO or the TD.

2. Departmental QMBs

Departmental QMBs were made up of the individual department and division supervisors and managers and chaired by the Department Head. QMBs reviewed Productivity Improvement Forms (PIF) containing suggested improvements on processes within their department. If it was felt that a PIF contained a viable suggestion but required further study, the QMB was authorized to convene a Process Action Team (PAT). It was determined that the QPIC would serve a dual function as a Quality Management Board (QMB) for any processes that might cross departmental lines.

3. PATs

A PAT was to be comprised of a leader, personnel involved in the process being studied and, when considered necessary by the QMB, a TQL facilitator. All participants of a PAT were chosen by the QMB based on their expertise and functional responsibilities. The PAT was to examine all details of the process in relation to the suggestion and report findings back to the QMB. Once all study on a particular PIF had been completed, the PAT was to be dissolved. The QMB was to make the decision as whether to implement the suggestion as suggested, modify and implement, or decline the suggestion. If the departmental QMB felt that a suggestion crossed departmental lines, they were to refer the PIF to the command QPIC/QMB. All PIFs that were declined were automatically reviewed by the QPIC/QMB. Others that were considered viable by departmental QMBs were implemented and action that was taken on the suggestion in the PIF was to be presented to the QPIC/QMB for information.

4. EIGs

A PIF could be submitted by either a single individual, named or anonymous, or by an Employee Improvement Group (EIG). The EIG was a group of at least ten people from within a work center or at least ten people who performed the same type of function across the organization. While membership in an EIG was considered permanent, it could be

adjusted as the situation or brainstorming effort required. Their sole function was to discover processes for improvements or suggested improvements through brainstorming sessions. Although room was provided for presenting solutions, a PIF did not require that a solution be submitted, only that a problem area be highlighted.

5. Facilitators and Trainers

TQL Facilitators were personnel assigned by the TQL coordinator and were specifically trained to provide aid to PATs and QMBs as TQL consultants, assisting in team building, use of pertinent analytical tools, and in assisting in keeping meetings focused. Trainers were trained both as Facilitators and Trainers and were to develop a curriculum for a two hour all hands Awareness Training. They were then to provide that training to all personnel in the command. Trainer/Facilitators were also to provide statistical training and assistance to PATs.

D. CONFLICTS WITHIN THE COMMAND

The implementation of TQL provided a forum for one particular issue to come to the surface. The organizational structure depicted in Figure 4.1 reflects a split at the XO/TD level on down with unity in the command occurring at the CO's level. Both the XO and the TD headed up separate organizations reporting to and being guided by the CO. Because the TD and the XO both headed separate organizations,

they each ran their subordinate organization according to their own management style and in line with their own priorities. The TD tended toward an authoritarian style of management and the XO used a more cooperative style of management. The XO and TD seemed to tolerate differing degrees of political maneuvering within their respective organizations resulting in a tendency for members of each organization to characterize the other along political or philosophical lines:

> Some people on the merger committee said you have to watch what you say in (Building) 919 'cause of spies. All information is fed to the TD. He's very powerful. He sets the tone and climate for how they run over there. Right now it's spy versus spy. People are really watching what they say or if you want the TD to know then tell certain people and they run and tell. We had to be real careful at merger meetings.

This comment was reflective a lack of trust between the XO and the TD.

1. Divided Loyalties

The division of the command between the XO and the TD was reflected in the command's TQL organization as shown in Figure 4.2 and effected the implementation of TQL in many ways. The division between XO and TD was perceived as effecting the way in which PIFs were handled:

> One PIF was submitted in September. It was so fricking simple and it is still sitting on TD's desk... Those under the XO have a tendency to take action more readily than those under the TD cause they're waiting for the TD to say O.K. and he won't say O.K. cause he's not supportive of the change.

> The command is split. N3, N4, N1 have a QMB that reports to the XO. N9 and N2 report directly to TD. We still have two separate organizations at the QMB levels with separate meetings. I think that fosters separateness in the organization. There are philosophical differences in how PIFs are handled. N2 and N9 are very technical and, probably because of NIF, spend the minimum time on problems. The other side of the house spends more time on them. Whatever it takes. Coordination between the XO and TD causes a time loss plus that flies in the face of TQL. Everyone's role is clearly defined but the split at the XO and TD level is not very good. It makes it more of a political process at that point.

As QPIC members began to experience the effects of the split in the organization, individuals' views tended to reflect loyalty to their respective chain of command. Some were loyal to the TD:

> I am totally frustrated with the civilian/military split. We have a TD who cares about the organization and has always run it. The CO has said he runs it and we have an XO from out in left field who jumps in and mucks it all up. That's the way I see it. If top management is not willing to give up empowerment to each other how can they expect employees to do the same?

while others were loyal to the XO:

> ...I don't believe that the TD supports it (TQL) with other than lip service and his attitude seems to get reflected in his chain (of command). The CO supports it therefore it's hard for people (under the TD) to get on board.

> Is TQL alive and well in the command? In (the XO's) departments-yes. In the TD's department's-no. Management style is different. There are inhibitions due to difference in management styles.

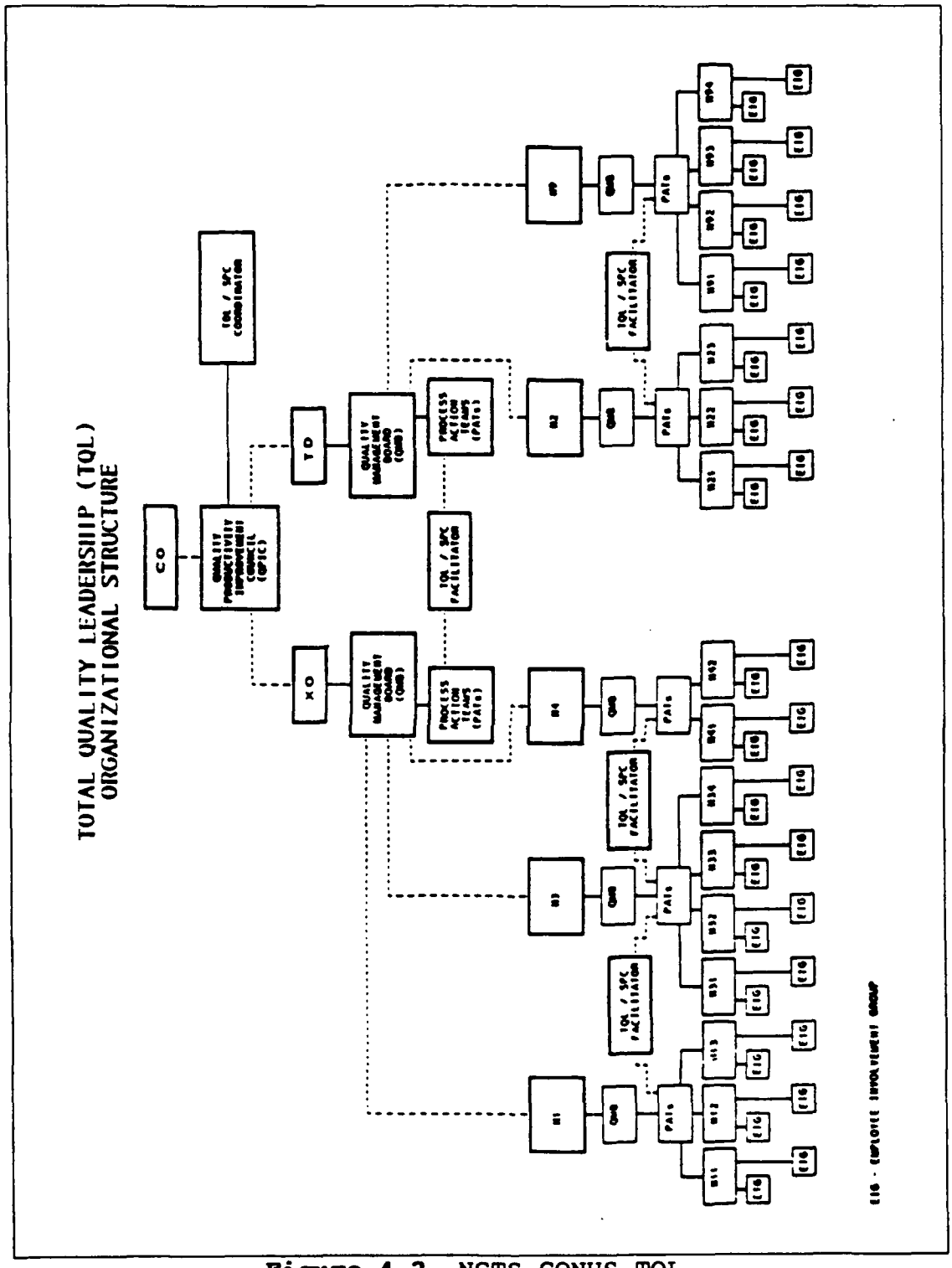


Figure 4.2 NCTS CONUS TQL Organization

2. Perceived Support for TQL

When all hands TQL training commenced, the CO or the XO made a point of being present at the opening of each training session, providing words of support and encouragement. The TD opened no training sessions and his absence was conspicuous:

> I've seen no outward sign that (the TD) supports this package and therefore neither do some of the civilians. The Captain supports it 100% but (the TD) would not. It was impressive to have the CO and/or the XO at every class. ...if he (the TD) wants it done it will happen. If we could somehow have gotten him onboard it would have made the whole effort easier and more credible.

In addition to not opening any training sessions, the TD was frequently absent from QPIC meetings. When he did attend, he did not assume the chair of meetings in the CO or XO's absence but instead countered suggestions for action with reasons why the suggestions could not be implemented:

> The TD dictates how things will be done at QPICs. He has a list this long (arms outstretched) as to why things can't be done because of NIF (Navy Industrial Funding).

This lack of action on the TD's part was seen as a lack of support and was interpreted by one QPIC member as evidence of the TD's skepticsim about the permanence of TQL:

> There's still some lip service paid by some managers. The TD--it's just another program. All he has to do is smile, nod his head and it will go away. Do the minimum required. No big deal. No change of philosophy.

Skepticism was also perceived by management as the attitude of personnel at lower levels toward TQL. Many managers believed these personnel saw TQL as just another

program and that, given enough time, it would go the way of Management by Objective or Quality Circles:

> There's a boatload of skepticism about the program... People figured this is what's happening now and we'll be back to business soon.
>
> (The hardest thing was to) overcome the perception of it's (TQL) just another mandatory program and that it would become a living program.
>
> MBO and quality circles and then there were COs with their own little plans like we had one that had green light sessions, brainstorming on things that were wrong. When this thing (TQL) came along people said, 'I've seen it before.' TQL and Quality circles are not much different except TQL has more management support. Productivity gain sharing was another one.
>
> (Most challenging thing so far has been) convincing employees that this is an opportunity to grasp on to. Opportunity to make a change in spite of the CO's motivation. Maybe when this CO leaves it can continue. I'm not hopeless but there's not much fire under the work force. They want proof before they participate.

In reality, the Chief Petty Officers' Community had recognized that TQL could work because they recognized many of the elements of TQL as being essential characteristics of sound leadership and management. Caught between the Officers Wardroom, Civilian Managers and the workers, they sought to bring the command together under TQL by proving the viability of the program. They mounted an independent effort to "TQL" a project early in the implementation process. Although their recommendations and proposed solution were submitted to the chain of command, no action was ever taken and the current location and status of their group effort was unknown, however, there were suspicions as to where it was:

> The Chiefs TQL'd (a problem)...to prove that TQL could work. Don't know if the proposal was ever put to CO or QPIC. I think it got as far as the TD and he squashed it cause...of his cronies. There's a lot of perceived favoritism. People are in positions cause of what they've done for the TD.

The majority of the QPIC members also recognized the need for some successes with the program in order to dispel any lack of confidence in TQL and management:

> ...I think we need a major success story to get everyone involved. Something popular with employees or something that they can see as a benefit to them.

QPIC members did realized that in order to get the program to work it required their support and, since this was a required program, their support was required. They recognized their role in the implementation process as being "promoters of the program", "cheerleaders", and "living proof that TQL would work" and, in spite of the schism in the senior management level, resolved to provide the required support for the program at least outwardly.

With the organizational split being as apparent as it was to QPIC members, it would probably be naive to believe that the effects of the split were perceived only at that level. Lower level supervisors recognized that the organization was not functioning as one:

> The merger was a hostile takeover and they're still trying to work out the quirks. I sometimes think that they forget us over here.

It was also clearly recognized that there were differences in the acceptance of TQL at senior management levels:

> The CO left no doubt that he supported what we could do and where we could go. Support it or don't work for me is the way our CO went. Some of the senior civilian supervisors didn't like it and told people they would fight it. But not on this side of the street. (It was) the Captain's right hand man-the TD.

E. EMERGENT ISSUES IN THE IMPLEMENTATION OF TQL

1. Work Time Devoted to TQL

With the military personnel, who were primarily OM&N funded, feeling that they were just free labor for the civilian side of the house and the civilian personnel, who were primarily NIF funded, having to deal with accounting for their time under NIF, the amount of time spent on TQL activities became the a hot topic for the QPIC. The QPIC had a difficult time coming to a consensus on this issue:

> We (QPIC) had a lot of knock down drag out arguing about time and cost and 'How can you say we're going to do it?'.

> Sometimes (the QPIC) needed to be jerked back on line due to too much discussion or controversy. The jerking was done by the CO, XO or (TD) as part of the group meeting.

> QPIC had a lot of problems agreeing. Deadlock. Problems encountered were about the sides taken between the military and civilians.

Since NIF required that all time not devoted to a specific customer job be written off as revenue lost or overhead, TQL was seen as an enormous expense by departments that were NIF funded. OM&N funded departments felt that they were just too undermanned to be able to afford the lost hours.

No one was happy about the additional time that TQL activities would require:

> It...see my pile of TQL folders, it's work. Any new program is. It's not any different.

> (It's) a lot of extra work for my people to go through. A lot. ...(TQL is) manpower intensive and will take time from normal work. We had to decide whether we would do normal work or TQL. It was decided we would do TQL. I think an hour a week is something we don't have time for, to sit down and do process improvement. We are undermanned.

> One of the problems with TQL is that it's expensive. Any time not spent producing product is lost revenue. Trainers had to be the best and that hurt taking the most productive people.... The work far exceeds the resources and then along comes someone with the dumb idea of TQL and now (upper levels of management) have to deal with that, too.

The TQL organization and responsibilities were reviewed and the QPIC decided that Process Action Team (PAT) members' work should be limited to one hour per week and All Hands Awareness Training would be stretched out over several months. These actions seemed to make TQL more palatable for key members of the QPIC and allowed the group to progress forward:

> Overcoming the concept and impact on NIF environment (was most challenging). It was overcome by laying out controlling caveats. A person on a PAT can only work one hour a week on a PAT. That has allowed me to be able to accept it without total loss of control of my resources.

Stretching the training over several months was done so that time accounted for under NIF for TQL training did not have adverse effects on the bottom line (profitability) in any one work center. It also made scheduling in the mission

funded departments easier to bear given that those departments were considered undermanned by their managers. While this approach may have had its benefits, there was one definite drawback:

> Training was done so long ago people don't remember it.

> We did management training too early. Supervisors were many months later and then months later there was the two hour awareness training. Close to a year had elapsed between management training and awareness training. We (department heads) need refresher training and we're on the fore front. Our people may know more (than Department Heads) cause of what you forget.... It's like having the pep rally for the Rose Bowl in July and the game in January. Get everyone pumped up and then start (the game) six months later.

2. Training Issues

Prior to the merger, NARDAC management and some NCS management personnel had attended "The Executive Course in Quality Improvement" presented by the Quality Alert Institute, Inc. during May 29-30, 1990. This seminar was designed to introduce management to Total Quality concepts, the basic tools and techniques of Total Quality and their potential for application. No effective action had been taken as a result of this training or exposure to Total Quality. It was determined that the Quality Alert Institute, Inc. should return and provide to the CO, XO, TD, Department Heads and selected military and civilian personnel the same training previously provided. While this training was being presented

to some for the second time, there were attendees present who were being exposed to TQL concepts for the first time.

a. Gaining Commitment to the Expenditure of Funds for Training

By the time QPIC members had completed training with Quality Alert Institute, Inc., they had been fairly well exposed to many of the concepts of TQL. Their expectations for the program, however, were not high because they felt that the CO was committed to the implementation of TQL only because he was expected to be. Even though they understood that the CO had prior successful experience with TQL that caused him to want to implement it in this command, most felt that the reason the program was being instituted was because it was being mandated by seniors further up in the chain of command:

> TQL was mandated by the CNO I understand. Headquarters said, 'You're gonna implement this.' Here we are trying to sell this to employees who've been through some of these programs. There used to be a Human Resources bunch, too, with computerized surveys. That's what we're up against.
>
> (It was implemented because) they knew it would be mandated.
>
> I think TQL was implemented because of direction from the Navy....
>
> (It was implemented) because the CO was told to. I take that back. Cause the CNO was pushing it and the CO wants to get ahead.
>
> Guidance from on high. 'You will implement. You will write an instruction. You will provide training' That portion was very much a dictating influence.

Although the CO had declared his personal commitment to the implementation of TQL, not all department heads felt that the cost of training would provide enough of a return to warrant the required expenditure:

> The CO made painful decisions as far as money is concerned. *It was $50,000 for training for the QPIC and* the trainers. There was a lot of resistance from those on the QPIC. We all knew our departments and our problems but the Captain saw real benefits.

All of the civilian contractors for TQL training were very expensive and expenditure of the funds was seen as a waste by some, compared to other projects within the command that would be either unfunded or receive less funds because of the expenditure of funds for TQL training. The CO was committed to obtaining the training and Department Heads just had to accept that:

> I'd been in on discussion and plans. We'd decided and then just went from there. Command decision. It wasn't optional.
>
> CO had a way to do it and the CO convinced us (XO and TD).
>
> Money. It's just a cost. We decided to commit X amount of dollars and do it right.
>
> The CO put on blinders and said, 'We're gonna do it.' And when he said that, everything goes by the wayside.

b. Attempts to Reduce the Cost of Training

After training the QPIC, formal TQL training still required within the command included follow-on training for the QPIC, Facilitators, Trainers, and all hands Awareness Training. The QPIC met several times to discuss the

selection of vendors for training. Since content and quality of training tends to vary from contractor to contractor, the QPIC agreed that, to ensure continuity, the command would continue using Quality Alert Institute for the follow on training. As the issue of the cost of training came up, though, this decision was to be revisited a number of times before it was finalized.

In following QPIC meetings, other alternatives were explored. CCPO was queried regarding vendor training packages and a proposal by a new company had come to the QPIC's attention. Still, the training was expensive. Other commands in the area were offered seats in training sessions in order to offset costs but when no other commands expressed an interest, it became apparent that the cost would be born by NCTS CONUS alone. The QPIC began exploring other ways to reduce the cost of training.

Initially, 13 people had been nominated for Trainer and 19 people had been nominated for Facilitator. Ten Facilitators and ten Trainers, a mixture of military and civilian personnel from both mission and NIF funded departments, were anticipated for selection. However, the issue of the cost of training and, perhaps, NIF may have forced a reduction to more realistic numbers in terms of cost: five Facilitators, four Trainers, with the TQL Coordinator, who was a mid-grade civilian employee, being trained as an additional Trainer. Additionally, Trainers would be trained

as Facilitators so that they could serve a dual role as both Trainer and Facilitator. This action further validated the reduced numbers. Seats in the classes would be opened to the NCTS's newly acquired remote site in another city. Seats were also offered to and accepted by another NCTC activity in an adjoining geographic area which paid for the billets that it used. While this offset some of the cost of training, the bulk of the cost was still covered by NCTS CONUS. Later, TQL training would be quantified at $4500 per hour revenue lost and this quantification probably reinforced the general perception amongst QPIC members that TQL was an expensive program.

c. Selecting Trainers and Facilitators

Since the TQL Coordinator had already been selected to attend the training, the original field of 32 people nominated for Facilitator and/or Trainer had to be reduced to nine. The QPIC chose to do this via murder board procedures. When a murder board is held, nominators must present their nominees and their qualifications along with the reasons why they believe the nominee would be best in the position. Other members of the board are permitted to insert their opinions and experiences with the nominees and to question the nominator about their candidate. Murder boards are often characterized by spirited discussion and, by some accounts, this murder board was no exception:

> Being on the QPIC, I've seen folks trying to manipulate what's going on. (They were) overly selective as to who could be a Facilitator, how things would be done, why some were qualified or not to be a Trainer.

Eventually, the QPIC did agree on five Facilitators and four Trainers in addition to the TQL Coordinator.

From the first meeting of the QPIC on 06 February, to the final decisions regarding who would provide the training and who would attend the training, and when the training would be held, it had required a month and a half and five QPIC meetings to reach a consensus on these issues amongst members on the QPIC. Even then, the consensus was not a true one because decisions were reported to have been made only after the CO stepped in, took charge and made some of those decisions for the group in order to reduce conflict.

3. The First Process

a. Choosing the First Process

In order to determine what process should be studied first, members of the QPIC submitted ideas for discussion and during the meeting of 14 May, all ideas were reviewed. The group determined that the first process should be one felt by employees throughout the command. The subject of Alternative Work Schedules (AWS) was proposed as a sensitive issue with many people, both civilian and military, in part because of the mission/NIF accounting methods. The effect of changes to command policy would be widespread and felt deeply. Based on this fact, the QPIC tentatively chose

AWS as the first process for study. Since the issues involved in AWS would definitely cross department boundaries, the QPIC would serve as the QMB for the study. It was confirmed during the following QPIC meeting that AWS would be the first process studied. Not everyone was happy about the selection:

> Picking the AWS was the CO's decision. I did not like it because it was way too broad. The first should have been very simple to be done within a month. There were so many others. Plus it's not going to turn out the way people want. Majority of people that talk to me about it want to know why it's taking so long. Some people (feel that), and I feel this way, is that it is something that the CO can just make a decision on. Feelings are too diversified. There's no way to make everyone happy.

b. Forming the First PAT

Nominees for the AWS PAT were presented by Department Heads at a meeting of the QPIC. Little debate of nominees' qualifications was noted and a list of individuals was published as an approved list of PAT members in the 01 July, newsletter. It was reported that some PAT members were not aware of their nominations or selections to the PAT until the newsletter was published. One member of the QMB was assigned the responsibility for developing a charter for the PAT and the TQL Coordinator was assigned to develop an information package on AWSs for their use.

Although the PAT was given a charter, there was no time limit on the team's existence and the team was told to take as many weeks as was needed to complete the gathering of data. While that was probably meant to keep the participants

from feeling like they had some impossible deadline to meet, it had a somewhat different effect:

> Management expects this particular PAT to be a long drawn out process. They told us to take as long as we need and that's what's happening. I don't want to sit on the AWS PAT for the remainder of my time here.
>
> I see people concerned on slowness of it. The big one in the mill the longest is something that effects everyone (AWS PAT). People are concerned cause they're interested and they're not getting anything except, 'We're working on it.'
>
> I think we're studying AWS to death. We discussed doing simple things but decided to do something meaningful and we either started too late or picked something too hard. Now it looks like another management slow roll. We'll meet for two years or until it's (TQL) canceled. Skeptical attitudes are reinforced.
>
> AWS is being beat to death. They're going to beat it into submission til it waves a white flag.

There was no indication that the PAT's charter had been shared with anyone outside of the QPIC/QMB or the PAT itself. According to the command's TQL Instruction, the QPIC, acting in the capacity of the QMB for this issue since it crossed departmental lines, assigned members to the PAT and chartered the PAT. No formal provision for informing Division Officers or supervisors of the assignment or charter were made.

c. Internal Workings of the PAT

During the time that the AWS PAT was being formed and chartered, command personnel were beginning to attend facilitator and trainer training. When that training was completed, a trainer/facilitator was assigned to the AWS PAT

but, from some accounts, never used as fully as they could have been. Group members tended to feel that more training on how to apply the tools, especially statistical, was necessary:

> For people with no analytical background, some kind of training is needed. Our charter does not give 'how to' (information).

> We haven't done too much statistical training. It's been said that if a problem comes up that needs statistical study then we'll get training for statistics. Should have been taught as much as steps in the process.

> When we first got the PAT together we had to come up with a way of gathering data. Trying to come up with a way to gather it was most challenging. We came up with a questionnaire to ask people in the command if they wanted an AWS....

Although the role of the trainer/facilitator is to provide that kind of training, it was not provided:

> It's important when a PAT first is formed to train them on these areas (data gathering and statistics) before even attempting to study a process. *Trainers* could possibly do this. They received training in June but I don't know, it's been so long since they were trained and I don't know if their supervisors would let them go.

In the meantime, as other command members completed Awareness Training and began to understand the purpose of the AWS PAT, the team began to experience peer pressure for some action. This may have contributed to a growing feeling of frustration for some PAT members. They began to feel that people just didn't understand the scope of the project that they had undertaken and that their peers had unrealistic expectations of TQL:

> My sense is that there is a perception on part of the people that we're not moving fast enough. They don't understand all that's involved in looking at AWS. They

forget that these PATs are not working on this stuff full time.

> We need leaders who can lead and not groups trying to make decisions. For instance, the AWS PAT is taking so long we'll never change. We'll never come to a decision.

The AWS PAT only met once every three to four weeks due to the one hour a week limit set by the QPIC on the hours they could spend on the project. During weeks that no meetings were scheduled, PAT members were to spend that one hour a week collecting data. The QPIC meeting of 23 August had rescinded the one hour limitation on the AWS PAT but some people still believed it to be in effect and no additional meeting times were scheduled.

Frustration for some of the members of the AWS PAT centered on the amount of participation of other PAT members and the limited amount of time they had together:

> I would like to have been on a PAT that seems more organized. This one is the first but we would need more meetings. We only meet once a month. Once a week might have been sufficient. We need more time together to discuss and talk about problems. By the time we get to the next meeting we forget what happened at the last one. I feel like I've been wasting my time.

On some occasions, some members would report to meetings with no data or information collected and this led to speculation by other members that they had not been able to get the allotted one hour a week to work on the project and this was attributed to supervisors' lack of support or PAT members' lack of interest:

> ...management won't give up time for the work force to be active in it and the PAT for AWS. That's not going to

be on their performance appraisal or evaluation so they work on those things that go on their performance appraisal.

...civilian personnel in their divisions and departments, they had a hard time getting time to work on their projects.... That's the excuse they used and I have no way of proving them wrong.

The team did develop a survey to be administered throughout the command to gather opinions on acceptable AWS alternatives and began to gather data. Data gathering, however, was still not complete as of December 1991.

4. PIF Processing

A Productivity Improvement Form (PIF) is used to document suggestions developed by either an employee or Employee Improvement Group (EIG) and submitted to the TQL Coordinator for assignment of a number and entry into the tracking system. It would then be processed as depicted in Figure 4.3. This process was published in the command's TQL newsletter for all hands.

The PIF tracking system allows for the constant tracking of status and location of a PIF. The system was put on E-mail so that anyone with access to E-mail could call up the status board and check current status. Status was updated weekly. The E-mail system had not been extended to all departments but plans were to put the entire command on the system. A listing of PIFs with their current status was posted on all command TQL Bulletin Boards. Some PIFs were more easily acted on than others. To prevent any from

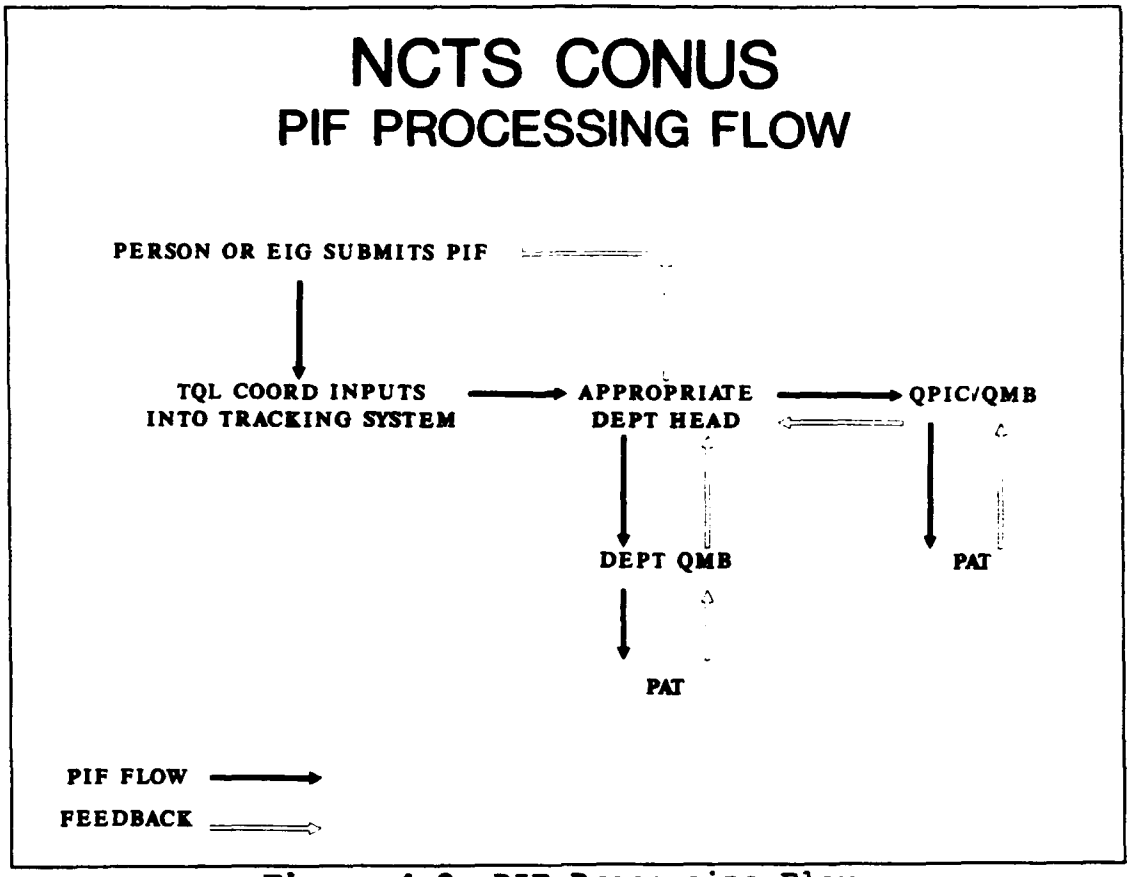


Figure 4.3 PIF Processing Flow

languishing in any particular "In" box, PIFs were routed in bright yellow folders and their status reviewed at each QPIC meeting.

a. Jumping the Chain of Command

The PIF submission and processing procedures turned out to be a source of much misunderstanding and some discontent. A number of management personnel felt that this processing route allowed members of the command to jump the chain of command with any issue. In the PIF processing flow there were no formal provisions for informing Division

Officers and supervisors of PIFs. Formally, they had been left out of the loop. Many of the initial PIFs submitted were perceived as complaints or gripes about things, some of which had been resurrected from times past, vice constructive suggestions or concerns for process or productivity improvement:

> It's given people, some people that were anti-management with certain constant problem areas, it's another channel for those to be addressed. Case in point, coat and ties (the dress code for civilian personnel was a recurring and sensitive issue). It's a positive way to channel from confrontative to cooperative on issues.
>
> Some people put in suggestions to test the system, push them through, make it fly....
>
> A hefty portion (of the suggestions are) not appropriate for PIFs. They're Benny Suggs (Beneficial Suggestions) or axes to grind. Department Heads have generally diverted those to the right channels.

All of this put some managers on the defensive and may have added to the feeling that the use of PIFs permitted people to jump the chain of command:

> We treat people like people and you don't use people at all. TQL is for departments where managers use people. As long as I'm here...people will feel free to submit ideas without using PIF forms and bypassing the chain of command.

This perception was somewhat shared by personnel at lower levels but in a slightly different light. It was perceived by some that TQL was a means that had not existed before that forced management to look at issues.

> At my level, getting people at lower echelons to participate (has been most challenging). They don't believe it. It's too good to be true. They've been beat over the head by the system too long. They want to wait

and see if it's a real deal...but there's a better feeling amongst people that ideas are being paid attention to, that there's an official avenue there now.

(The most stimulating thing about TQL is) the fact that you can have suggestions about changes and know that they won't get stopped in the chain of command.

Getting the military side involved has been easiest. Give a sailor a forum and he'll take pot shots. Over at (Building) 506 there are people who feel they can say what they want. May not be well received but they'll say it.

I believe it's a real good program. I think upper management is, if you want to call it, stubborn about taking lower management's ideas and ignoring them. It's improving the way upper management looks at our ideas.

Others really did see the PIF submission and processing flow as a means for jumping the chain of command:

This TQL is the only way for workers to bypass supervisors that won't listen or that they can't get along with.

TQL allows you to bring things up, jump the chain of command, without getting in trouble-that's not a good word-without looking like jumping over the boss.

Oddly enough, personnel at the management level, both military and civilian, seemed to think that TQL was a program that had always been done on the military side of the house and that it was the civilian side of the house that was in the most need of it in order to give civilian personnel a long denied opportunity to put forth suggestions and get credit for them or to not be labeled as a troublemaker:

People made suggestions and others took claim to it and got credit. A lot of those are really very devious over there (Civilian personnel in Building 919). TQL will really help that side of the house.

(It's) giving people an opportunity to state ideas even when they're not on processes. Some (ideas) are just

bitches. If they had put them in the CO's Suggestion Box they would have been labeled a troublemaker. This seems to avoid that if we act on them (ideas) in a positive way.

b. Crossing Department Lines

From September through mid-December, 43 PIFs had been submitted and those that fell within Department boundaries were being acted on by Departmental QMBs. None of the successful actions were publicized to the entire command except through the PIF tracking system:

> We're not doing a very good job of advertising changes through the command. I skim the TQL newsletter, the POD but unless it's going to attack me, I don't stay after it.
>
> They should publicize what they're talking about, the little things that they took care of quick.

Eventually, resolving PIFs that crossed departmental lines took on an element of importance for the QPIC. In the investigation of a particular PIF, a simple and direct solution was found that could be instituted at no cost and would eliminate a source of annoyance for some people. To the members involved, neither the issue or the solution appeared to involve other departments, however, when the changes were instituted and the QPIC apprised of events, the Department Head who had taken the initiative also took some heat from fellow QPIC members for not clearing things through them:

> (The Department Head) got hassled at the QPIC because he hadn't consulted with other Department Directors, his peers. That carries over when one sees the hassles. Then others won't do anything. Co had to shut it down.

> One problem we found at the QPIC: where do you determine if PIF crosses department boundary? Department Heads have to determine. Some are very clear, some run full shades of grey. There's no good line and some Department Heads have implemented things that had impact outside of their departments. CO was a bit annoyed with people who complained and still left it (decision to implement) to Department Heads. Screw it, do it, deal with consequences later.

Despite the CO's strong support for the Department Head who had taken action, this type of reaction may have led to some later inaction on PIFs, non-documentation or non-reporting of improvements, and failure to report formation of PATs for Facilitator assignment. It was beginning to appear that the formal processing procedure for PIFs was being skirted when possible.

c. A TQL Bureaucracy

TQL, with its formal structure and rules for processing PIFs, was perceived as becoming a bureaucracy of its own:

> TQL here is becoming a program. Bad way because it's becoming a check in the block. Management of it is becoming a political, elaborate structure that supports it. It's becoming bureaucratized, making it an office with office furniture and people.

Personnel were beginning to find ways around the blossoming bureaucracy. Although PIFs were supposed to go directly from originator to the TQL coordinator, Department Heads would sometimes keep them within their departments taking action as they saw fit and when they saw fit but never entering them into the system. There were efforts in several

departments' QMBs to form PATs to investigate processes within departmental lines but these were not reported to the TQL Coordinator for Facilitator assignment. At one QPIC meeting, one member indicated that a PAT had been formed to investigate check-in/check-out procedures, however, no facilitator was assigned to it and it eventually ceased meeting. Despite the fact that this issue crossed departmental lines, the QPIC failed to pick up the PAT for follow up.

The belief that no good ideas could be acted on without being documented on a PIF was growing. This belief made management feel that earlier expectations about TQL being a lot of work were justified but also raised the specter of The Paperwork Reduction Act of 1980. Not only were management personnel beginning to view TQL as just extra work, they were also beginning to see it as a paperwork drill:

> Some managers and supervisors may feel that they have to wait to make changes until it has run through the TQL process.... That ideas must be documented on PIF and then the manager becomes a paperwork processor and can't get simple decisions made.
>
> There are things that come up where people submit a PIF. It's a long and drawn out process. Before, I would have just said, 'Let's go with it. Good idea.' but now to get people involved, I take more time. Get them involved in submitting a PIF.
>
> ...Another thing, this is a paperwork nightmare. Everything has to be documented to prove your point. This is the folder I've got. I could have made it thicker if I had wanted to. That's almost a tree right there and with cost reduction and the environment thing this is a waste and it is against the paper work reduction program. Paperwork is snowballing.

NCTC had issued a TQL instruction requiring quarterly reports on the status of the implementation of TQL within each activity. Now, in addition to required PIF documentation, a quarterly report was required. As a natural result of having to report status of the implementation of TQL, it became very important for the program to be able to report accomplishments:

> I hope it doesn't turn into a contest--Who has the most PIFs. It is becoming that at this command. The reports to Telcom (NCTC) worsens the political nature of it. It can't help but become 'Gee, we're not doing enough.'

The number of PIFs submitted by department was becoming important and those departments with few or no PIFs were made aware of the fact that the number of PIFs submitted was known and tracked by the CO:

> We say we can't push it down peoples' throats yet we get E-mail from the CO requesting status of PIFs and if I don't have something, it's negative.

The number of PIFs was becoming important enough that one department head simply ordered that PIFs be written and submitted:

> Up until last week we were the only department with no PIFs. I've been after my Division Officers to get at least one in to make it look like we're playing the game.
>
> We've put in one in my division cause we were directed to put in a PIF so we took a pot shot at another division.

5. Current Status

The QPIC could rarely come to a consensus on its own without an inordinate amount of discussion and sometimes

conflict. One method that was used to reduce conflict during meetings was to assign one member to collect input from all other members on a specific topic. Decisions were then made based on the compiled data presented at following meetings. In an attempt to keep things moving, the CO had eventually begun actively chairing and moderating all of the QPIC meetings. In spite of this, he felt that the QPIC was at a point where it could be considered self-sustaining and planned to begin withdrawing his personal forceful involvement.

The command completed the DOD self assessment survey in December 1991 in an effort to determine the next step in the implementation process but the CO was concerned that Department Heads might have feared the assessment. He felt they were concerned that the assessment would show that Department Heads hadn't been doing TQL enough.

Most in management were confused as to how TQL differed from what they had been doing all along. There was confusion amongst key members of the TQL organization as to what was the difference between TQL and the old Beneficial Suggestions or Military Cash Awards Program. One department head felt that participation in TQL indicated that management was not performing up to standard:

> I don't expect people to put in PIFs. If you get eight or ten PIF in each division then something is wrong. It shouldn't take MBO or TQL to solve problems. It shouldn't be one or two people saying, 'No, I don't want it done that way.'

Lower level supervisors still felt, however, that TQL could work to solve some of their problems:

> I believe in it. I believe it's gonna work. Not like religion, it's been proven. It works. Learn it, do it, and it will work. The proof is there.

> I believe it could work if everybody gave it an honest effort. To look at PIFs that come in front of them in a realistic way saying it could work instead of just no.

The feeling had a sense of urgency to it, though, because now they were beginning to feel that they had to get things done using TQL while they still could, while it was still around and had support:

> My biggest fear is that further down the road the next skipper could just rubber stamp things. Some of the civilians have been afraid that they couldn't get things done quick enough, while there was still enthusiasm for the program.

With a change of command planned in June, the concerns for what would happen when the new CO checked on board were beginning to mount:

> I do have a concern. If the next CO is going to be as strong a supporter as (our CO). (I'm concerned) that he will make tradeoffs: 'TQL or something else? We'll do TQL later.' Hopefully as Navy and DOD get more experience and people get more exposed, this will evaporate over time.

> Will the next CO be as strong on TQL? Are people going to be able to use what they learned? Will all my time be wasted?

There were some that held out hope for the program:

> It needs help. We need to convince the work force and all levels of management that it will work and that they won't lose control. There are some people who could really make it work and are gung ho and just need the leverage to do it.

> On a scale of 1 to 10, we're about a .9 in the change process. It's not fully accepted but implementation is started. Some understand, some have already forgotten but it's onboard and it's happening.

And there were some that were very optimistic about the future and potential of TQL:

> People don't want to admit to using TQL but I see people who are and they come to me and say, 'We're trying to do this PAT....' We're getting somewhere.

> Got another one (PIF) today. Pretty slick. People are getting more sophisticated. Haven't got one that will save me a million bucks but you never know.

Many members reported that the Total Quality effort had made them more conscious of putting a quality effort into their own work and a large number of personnel saw personal satisfaction for a job well done to be the main reward for participating in the program. It did appear that TQL, even with its problems, was having some positive impact and it appeared that it was the only thing that the entire command was working on together.

V. ANALYSIS AND RECOMMENDATIONS

Understanding and analyzing any change cannot be done in isolation from the organizational context. The influence of context is strongly demonstrated in the NCTS CONUS case. Therefore, before examining the change process initiated with the implementation of TQL, an analysis of the changes involved in the merger is presented.

A. THE MERGER

1. Building the New Organization

a. The Organizational Identity

The values and norms of an organization guide the behavior of the people in the organization in the accomplishment of their purpose. Values are conveyed through common jargon, rituals, history, symbols and management or leadership styles. Norms are conveyed either informally or formally through policies and procedures [Ref 13]. Values and beliefs are basic to an organization's identity and an organization's fundamental purpose provides meaning to people's work. An organization's purpose has its basis in the organization's values and beliefs [Ref 14]. Changes to the core values, norms or purpose of an organization bring uncertainty through loss of the current identity. If a new

identity does not fill the gap created by the loss of the current identity, an organization will tend to revert back to that which was lost in order to maintain that which is essential to its survival, its identity. Realigning with the old identity does not solve the problem of adapting to or dealing with necessary changes, but it does provide the organization with a false sense of security that enables it to continue to function. This false sense of security provides a necessary feeling of stability for the organization as fundamental changes in the organization's identity are attempted. Thus, while changes may require that old values, beliefs, norms or purpose be relinquished, it is necessary that the organization have profound replacements firmly in place in order to reduce the anxiety stemming from uncertainties associated with loss or change. [Ref 15]

b. Hanging On to Individual Organizational Identities

Prior to the merger, both the NCS and the NARDAC had its own identity based on its own values, norms, beliefs and purpose. There were fundamental differences in the two organizations: different missions, different funding methods, different work force composition, and different management and leadership styles. No effort was made to establish a new set of values, norms, beliefs or purpose that would be common to both organizations and, consequently, enable the new

organization to reconcile its fundamental differences and develop its own unique identity. Since no common set of values, norms, beliefs or purpose existed to replace those of the individual organizations, and the individual organizational identities were not relinquished and, even though merged in name, the two organizations remained structurally and functionally separate.

When NCTC directed the merger of the NCS and the NARDAC, they were reacting to the merger of communications and computer technologies in the commercial world. Current technologies make distinguishing communication equipment from computers impossible. The functional overlap of Navy communications and computer commands and personnel ratings was beginning to occur without the benefit of a centralized command structure to support uniform technological changes and growth. The merger of the commands was, thus, an attempt to formally merge function in response to an already merged technology and an effort to reap the benefits of a bureaucratic structure through centralized control. At NCTS CONUS, no attempt was made to establish the new command's identity based on this merger of functions and technology. As a result, the two major elements of the command retained their individual identities in order to continue to provide meaning to their work and permitting each to continue to function, albeit with a false sense of security.

c. Laying the Foundation for a Common Identity

Organizational identities, obviously, are not developed overnight but develop over time, tailored to fit the needs of the organization. Even if the new command had recognized the need to develop a new identity, it would have been impossible to establish a new command identity that would become effective on the date of the merger. Time and skillful management of the change process is required to enable an organization to adjust to changes to its core values, beliefs, norms and purpose gradually developing its new identity. However, efforts could have been undertaken prior to the merger to identify, develop and publish some common values, norms and a purpose as starting point for the new organization. In doing this, the effects of the merger could have been mitigated providing for greater stability in the change and laying the groundwork for fundamental merger of functions within the new organization.

The need still exists to unite the command on common ground. Top management needs to build a consensus on core values, develop common norms and a common purpose. Establishment of common rituals and symbols will help members feel and adjust to the new unity. There are differences in both commands that cannot be changed. Different values, norms and purposes drove the establishment of different funding methods, different work force compositions and, as a result, different management and leadership styles developed to deal

with these value-based differences. Different missions, funding methods and work force compositions will continue to be a fact of life and just developing common values, norms and purposes will not reconcile these differences. Top management's approach to these differences must be reconciled in its different leadership and management styles based on the new values, norms and purposes.

2. Analysis at the Individual Level

a. Facing Uncertainty

The more control that an individual has over changes in the environment, the safer those changes seem. When an individual has little control over changes in the environment, those changes are threatening. Change, then, is seen as a loss of control and a common reaction to loss of control is defensive territorial behavior. This kind of behavior is evidence that the individual is attempting to hold on to the known rather than face the risks of the unknown. The unknown may require that old habits and routines be disrupted and that workloads increase. The unknown may mean that old competencies are no longer acceptable and that new skills will have to be learned in order for personnel to be considered competent. And lastly, the unknown may pose a real threat to the security of an individual's job. The uncertainties of all of these things will cause the individual to feel powerless and out of control and cause the individual

to seek the safety of the known. The individual will attempt to hold on to the current situation, resisting the change. [Ref 16]

b. Uncertainty Created by the Merger

The XO and the TD were not in control of whether or not the merger would happen. That was done to them by higher authorities. The reaction to this loss of control was to retain the form and function of each of their respective organizations (territories) in order to minimize the impact of the changes brought on by the merger. Both individuals, however, felt threatened by the events occurring around them and must have seen the reshuffling at the top management level as a real threat. Their response was to behave in a predictably territorial manner, each carefully guarding the authority and boundaries of his individual organization. By maintaining their organizations more or less intact, they were able to continue doing business as usual with workloads remaining essentially the same. The XO did not have to get involved in the computer end of the business and the TD did not have to get involved in the communications end of the business. Neither had to learn new skill in order to manage competently in an alien world. The end result of this safety seeking behavior was a failure to merge the two commands in such a way that would permit the eventual merger of functions using the combined technology concept as a foundation.

c. Reducing Uncertainty

To reduce resistance, management must recognize the source of the resistance and provide as much information about the change as possible to the participants. If the threat is real and personnel will lose their jobs or be moved, the best course of action is one that provides for swift action and a clean break to prevent a buildup of anxiety, frustration, and resistance that could possibly infect the organization [Ref 16]. One way to keep expertise but unencumber the change process is to move those who cannot adjust into staff billets where their expertise is needed but they do not have to be involved in the change [Ref 12].

One way in which the XO and the TD could have been provided information on the merger that would have reduced some of their resistance would have been to put them both on the merger committee. The two would have been forced to investigate and resolve issues rather than just independently make decisions about issues based on data presented to them. Interaction between the two might have reduced uncertainty about the intentions of the other and thus reduced territorial behaviors.

On the other hand, their behavior may have been a reflection of their individual recognition of the duplication in the command's organizational structure. The current command structure is an impediment to the combination of functions based on combined technology because it inhibits

functional group interaction and communication across functional boundaries. Considering the previous reshuffling of top management, neither the XO or the TD would feel secure in their jobs once they have recognized that the duplication in the command's organizational structure was probably unnecessary.

In order to correct the situation, either the XO or the TD billet needs to be eliminated or the TD billet moved to head up the Plans Department (staff). Eliminating the XO billet could create anxiety and uncertainty in the military work force aggravating the feeling that they are not important. Eliminating the TD billet could cause the command to alienate key members of the civilian work force and, possibly, cause the loss of some significant expertise from the civilian work force due to individual loyalties. Moving the TD to head the Plans Department might allow the command to retain the TD's expertise without alienating members of the civilian work force. The recommended course of action is to move the TD billet to a staff position and to make the change as quickly as possible to prevent further discord in the command and complication of the implementation of TQL.

B. IMPLEMENTING TQL

1. Mobilize Commitment Through Joint Diagnosis of Current Situation

a. Commitment and Timing

The only way to develop a common understanding of why change is required is for top management to jointly assess the organization's current situation [Ref 12]. It's extremely important that top management develop a common understanding of why change is required and be committed to that understanding because it is top management that must lead the organization through the change. With change creating uncertainty, personnel react with fear and anxiety, and personnel look to leadership to reassure them that the change is safe. If top management does not appear convinced that the change is necessary and safe, subordinates will not risk the uncertainty of change and will resist change. Additionally, too much uncertainty at one time can result in strong feelings of loss of control leading to resistance to change. Planned changes, then, require strategic timing to enable personnel to mentally and emotionally prepare for changes and commitment to the change by top management in order to minimize resistance. [Ref 16]

b. How the Timing of the Implementation of TQL Effected Commitment

TQL came directly on the heels of the merger. Little time was allowed for the new organization to develop and adopt its new identity before the implementation of TQL was begun. Too many changes too close together created too much uncertainty and the result was resentment and resistance to the implementation of TQL. Top management, having difficulties coping with the uncertainties that remained unresolved from the merger and those created by the implementation of TQL, resorted to territorial behaviors resisting the implementation of TQL.

Top management was clear on only one thing about TQL and that was that its implementation was being directed. This, like the merger, was a change that would ultimately effect their core values and, thus, their organizational identity. It was a change done to them leaving top management with a sense of loss of control and uncertain about why or how TQL should be implemented. Being military, the XO's choices were limited: support the program despite the uncertainties and his personal reservations or sacrifice his career. The uncertainties of sacrificing his career certainly outweighed the uncertainties of implementing a program directed by seniors in a command that he would eventually leave. He chose to provide outward support for the implementation of TQL. The TD, on the other hand, had the same basic choices but, because the implement and transfer option was not available, he chose to deal with the uncertainties of the new program by simply

waiting. If he could wait long enough without doing anything substantial, TQL might eventually fade away as other management programs in the past and his organization would be relatively unchanged continuing to retain its identity and purpose.

Top management was struggling with the dysfunctional organizational structure created as a result of the uncertainties of the merger. They did not have a common understanding of why the implementation of TQL was necessary or how it would work. Too much uncertainty resulted in resistance to the implementation of TQL and uneven commitment to it at top levels of management. Lower level managers could not consistently look to their leaders for reassurances that the implementation of TQL was good and, therefore, had great difficulty providing support for TQL since it only seemed to plunge them and the command into greater uncertainty.

c. False Starts

If top management does not understand why changes are important, Critical Mass will not be achieved and the organization is likely to march off smartly in the wrong direction. W. Edwards Deming describes these false starts as being

> ...deceptive. They give satisfaction, something to show for effort, but they lead to frustration, despair, disappointment, and delay. [Ref 5:p. 135]

NCTS CONUS has, essentially, gotten off to a false start that will provide management with something to report to NCTC in their quarterly reports but is leading to frustration and resentment. It will adversely effect the functioning of the TQL organization and delay the acceptance of new behaviors and competencies in the command organization. Since Critical Mass has not been achieved, it is crucial to the success of the change effort to back up and develop a common understanding of why change using TQL is needed and to develop commitment to the understanding through joint diagnosis of the command's current situation.

2. Developing a Shared Vision

a. The Vision

Once Critical Mass is achieved, the development of a shared vision by the Critical Mass can begin [Ref 12]. The shared vision is a view of the organization in the future and gives the current organization something to stretch and aim for [Ref 8]. Before developing a vision for the organization it is necessary that the organization have a starting point and a mission statement can serve as that starting point [Ref 17].

A mission statement is based on an organization's values, beliefs and purpose. It provides members of the organization with an overarching goal [Ref 14]. Guiding principles further define and support the mission statement

and the vision statement and are designed to guide the actions of members of the organization in achievement of their mission and pursuit of the vision [Ref 8]. Involved in the development of the vision must also be the development of an understanding of how the organization is going to grow and develop to reach the vision [Ref 12]. Change requires a leap of faith, faith that the vision can be reached. If the upper levels of management cannot make that leap it is because they have not been given enough information to assure them that they can make the leap and that the leap is good [Ref 16].

b. Laying the Groundwork for Building a Vision Statement

NCTS CONUS is starting at ground zero with no commonly held values, beliefs or purpose on which to base a command mission statement. Since a command's mission statement is based on the organization's values, beliefs and purpose it is important that NCTS CONUS' Critical Mass develop a statement of those values on which they want to base the future of their organization. They need to develop the groundwork for the command's beliefs about itself and the world in which it exists by developing a statement of beliefs and, then, they need to unite the organization with a common purpose. Based on these developments, they can develop a mission statement to serve as their starting point for their vision statement. Drawing upon the mission statement and the

recognized need for change developed in the previous analysis, top management can clearly layout where it is the command must go. How the command will get where it is headed has been directed to be TQL.

Because the implementation of TQL was directed vice being developed by the command as their chosen course of action as a means for reaching their vision, there is a lack of commitment to TQL. The lack of commitment to TQL is caused by the uncertainties stemming from a lack of understanding of TQL and how it is to be implemented. Uncertainty and a sense of loss of control exists within the upper levels of management and are driving their actions, i.e, territorial behaviors. Further education on the purpose of TQL and how it is supposed to work is needed so that upper management can develop implementation plans for their own organization according to their needs. This is necessary in order to minimize the resistance within upper levels of management and build commitment to the shared vision.

3. Foster Consensus for the Vision, Skills to Build it, and Constancy of Purpose

a. Foster Consensus for the Vision

In fostering consensus for the vision, the parallel structure that will be used as a mechanism for managing the change process should be developed. Roles and responsibilities should be defined [Ref 12] and internal

operating rules for the components developed [Ref 2]. The TQL organization should be a microcosm of the command organization formed along process lines. Care should be taken in developing the parallel structure for two reasons: 1) Dysfunctionalities in the command structure can be recreated in the structure of the parallel organization and will determine the degree of political behavior within the parallel organization and, thus, the effectiveness of the parallel structure; 2) The degree to which the parallel structure is perceived as supplanting the command organization will determine the support it receives from top management, and thus, the success of the parallel structure [Ref 18].

(1) The Potential for Duplicating Dysfunction in a Parallel Structure. An organization seeks safety and certainty in dealing with changes by resisting change [Ref 16]. In dealing with changes brought about because of the implementation of a parallel structure, an organization is likely to attempt to reduce uncertainty by remaining with what it knows. A dysfunctional organization will perceive that it is easier to deal with its known dysfunctions than the unknown [Ref 16]. A dysfunctional organization will, therefore, be more likely to create a parallel structure with the same dysfunctionalities as the command organization in an attempt to reduce uncertainty by remaining with the same

organizational paradigm even if the original paradigm is dysfunctional.

Organizations with unclear or ill-defined goals and competing authorities tend to seek resolutions to their conflictual elements. Those conflictual elements are likely to be brought to the parallel structure. The parallel structure becomes a forum for the discussion of those conflicts. The more issues in conflict in the organization, the more political the behavior in the parallel structure. As the parallel structure develops resolutions to those issues by consensus, commitment to the resolutions is developed. If, however, a true consensus is not reached, those still in conflict will withdraw their support from the parallel structure. The influentiality of those persons will determine the support provided to the parallel structure and, thus, the effectiveness of the parallel structure. [Ref 18]

(2) Business as Usual in the Command Organization.

If the parallel structure is seen as something replacing the current command structure, it is considered a radical departure from the current way of doing business. When change is presented as a radical departure from the current reality, uncertainty is created. People are more likely to become committed to changes that do not appear to be radical departures from their current reality [Ref 16]. Therefore, the parallel structure, with its unique structure and internal

operating rules, must operate parallel to the command organization and cannot replace the command organization or radically alter the command's way of doing business if it is to be accepted by upper management. The degree of acceptance amongst upper managers determines the degree of support that will be given to the parallel structure and, thus, determines its success [Ref 18].

b. How NCTS CONUS' TQL Structure Failed to Foster Consensus for the Vision

The TQL structure that was developed at NCTS CONUS had no published purpose that the organization members were aware of. TQL was seen as something that had to be done because it was directed. The merger was an unwelcome event that had created tremendous uncertainty and there were basic issues directly related to core values and command identity that were left unresolved. No vision existed towards which the command could work or towards which a consensus could be built. Instead, both the command and TQL organizations sought to reach a consensus on basic issues relating to core values and command identity.

(1) Seeking Consensus to Conflictual Elements. The TQL organization was developed along the formal lines of authority within the command organization rather than along process lines. The boundaries of the two branches of the TQL organization reflects the territory of the person responsible

for the same branch or component in the command organization The command power structure has been duplicated in the TQL structure preserving individual territories and authorities. This kind of defensive territorial response to the uncertainties of creating a parallel organization is reflective of resistance to change. Because the TQL organization was structured the same as the command's organizational structure, many of the same habits, expectations, patterns of behavior and roles have been recreated in the parallel organization. Uncertainty was reduced by doing this and made the whole concept of a parallel structure more understandable to some organizational members. But in so doing, the purpose of the structure, to learn and practice new behaviors (communication, functional interaction and group decision making skills) not typically used in the command organization, was lost.

The command had no common purpose or goals and competing authorities were built into the command and TQL structure (competing XO and TD billets) and the purpose of the parallel TQL was obscured by territorial battles. The parallel structure became the forum for the conflictual elements between the organizations that had been left unresolved from the merger (missions, funding differences, work force composition, and different management/leadership styles). As the QPIC began to deal with the implementation of TQL as it related to those conflictual elements, it

encountered the same kind of conflict that lower levels of management would face in dealing with them. There were no easy answers and the QPIC struggled to reach a consensus on them.

Some early decisions regarding training and selection of Facilitators/Trainers were made through group consensus of at least those members present at meetings and the decisions were, for the most part, supported by the individual QPIC members. Those decisions made after the CO stepped in and shut down conflict within the QPIC (e.g., choice of the subject for study by the first PAT, increased weekly work time allowed for members of the AWS PAT) received far less support from the individual members of the QPIC. The CO's efforts to reduce the conflict in the QPIC only heightened conflict within the command. Even though the conflict within the QPIC was probably stressful, it had the potential for aiding upper management in developing a consensus on core issues that would permit the implementation of TQL to proceed and begin laying the foundation for the development of one command identity. When the conflict was shut down and group decision making halted, the potential for consensus ceased and political behaviors were continued. A form of "TQL Gridlock" began to develop in which no right course of action seemed apparent. Unsure of what to do next, the QPIC did virtually nothing after all hands awareness training was completed and the AWS PAT commissioned.

Without its forum, the conflict seemed to move into the open. The entire command became aware of the conflict and in attempts to reduce uncertainty, members of the command began to take sides according to what they knew and with which they felt comfortable or safe. The AWS PAT, in particular, bore the brunt of this action. The QPIC should have been able to reach a consensus on many of the issues stemming from conflicts in core values. In so doing, they would have been indirectly reconciling conflicting core values because their decisions would have reflected the newly agreed upon values. By forcing the conflict out of the QPIC, the AWS PAT became the only organized entity that was recognized as being responsible for collecting data on an issue rooted in core values. The subject of AWS deals with all of the issues: mission differences, funding differences, work force composition and, ultimately, management and leadership styles. These differences have their basis in core values. As long as conflicts in core values exist, conflict within the command will exist and the organization will seek answers to the conflict.

Members of the AWS PAT began feeling pressure from their peers for decisions that they did not have the authority to make. Unable to provide answers to conflicts in core values and unable to concentrate on the issue that caused them to exist without full management support, the AWS PAT began to flounder. The PAT began looking for a course of action that

would minimize risk and uncertainty for its members. They finally settled on administration of a survey throughout the command in order to determine their peers' desires. This action would reduced the uncertainties and risks that the individual AWS PAT members faced in making future change recommendations because there would be safety in numbers. They would not be taking the risk of making their own recommendations but, instead, reflecting the desires of the entire command. The effectiveness of the PAT in learning new behaviors and solving the problem at hand was, thus, diminished.

(2) Radical Departures. The TQL organization at NCTS CONUS looks like the now familiar command structure but it feels like a radical departure from the way of doing business because most members feel that TQL permits them to jump the chain of command. A stable organization with clear values and goals and no competing authorities might be able to accept this incongruity. This command was in such turmoil with defensive, territorial behaviors in existence that it could not. The only values that members were sure of were traditional military values. Now, a basic military value of the entire organization was being challenged, the integrity of the chain of command. While this is not the intent of TQL, the current PIF processing procedures not only encouraged it, they directed it. As long as this reality exists, management

will just have one more reason for not providing full support for TQL because of feelings of loss of control. In attempts to deal with feelings of loss of control and uncertainty about the loss of core values without acceptable replacements, upper management has begun openly resisting by attempting to regain control of PIF processing by skirting or not using the formal PIF processing procedures. They are returning to procedures that they know and feel safest with--the chain of command repleat with definitive bounds of authority (territories). As a result of the failure to use the formal PIF processing procedures, they are beginning to see the processing procedures as unnecessary except as they are needed to satisfy the CO's demands. Combined with the embattled QPIC and the TQL Gridlock that has developed, the entire concept of TQL with its bureaucracy and its accompanying workload are beginning to be seen as pointless.

c. Correcting the TQL Structure

Previous recommendations-establishment of common values, norms and procedures, achievement of Critical Mass, development of mission and vision statements--must be accomplished before making changes to the TQL structure. The command organization needs for the TQL organization to have a purpose in order to accept its existence [Ref 2]. That purpose will be based on common values, norms and procedures [Ref 14], developed by the Critical Mass [Ref 2:p. 127], and

driven by the mission and vision statements. Even though there is a generic purpose for the TQL structure, each command must identify its own reasons for developing the parallel structure.

Since the generic purpose of the parallel TQL organization is to provide a bounded time and place for the learning and exercise of new behaviors, certain elements in the structure of the TQL organization will take a predictable form. The ESC, or QPIC, will provide for the strategic planning of the implementation of TQL and work with customers to determine product needs. The QMB works with the ESC to set process oriented goals and customer specifications. The QMB owns the processes and has the authority to examine them for potential improvements and make changes as necessary. The QMB works with the PATs to collect data on which decision will be made. [Ref 6] Each component has a task and in the performance of its task, communication, interaction between functional groups and group decision making skills have to be used because of the inter-relatedness of the basic TQL organizational structure. The new behaviors that are required for SPC are, consequently, learned. Focus on the task creates changed behavior [Ref 12].

The QPIC needs to divest itself of the responsibility of acting as the QMB for every PIF crossing department lines. The QPIC's task is a strategic one. By dual-hatting the QPIC, they have been diverted from that task

and no one is performing it. Additionally, a blanket ruling such as this, reduces the organization's flexibility and increases the bureaucratic nature of the organization. QMBs need to be formed along process lines vice lines of authority to ensure that their focus is on task rather than territories. The need for dual QMBs at the XO/TD level is not necessary and actually encourages separateness rather than interaction. These need to be disestablished. While Departmental QMBs can most likely remain, the fact that QMBs will be created in the future whose composition is according to processes should be made clear. These actions will aid in shifting the focus of the TQL organization to the necessary task orientation. In order to accomplish the tasks, however, skill development is required.

d. Developing the Skills to Build the Vision

(1) Skills Needed. Significant changes bring with them the fear that the skills that were right before are no longer right. If a change does require new skills, training and education to build those skills are necessary to relieve the uncertainty and, thus, reduce resistance to change. Once training is completed, personnel need a place to practice the newly developed skills without fear of ridicule or judgement [Ref 16]. A trained Facilitator can guide a group in the learning and use of new skills. The role of Facilitator requires maturity, the ability to handle expressions of strong

emotion and competence [Ref 15]. Rules for the internal operations of a group can help to reduce conflict within the group without reducing constructive discussion: one person may speak at a time, the chair must recognize an individual before assuming the floor, meetings will last no longer than one hour, only agenda items will be discussed, group consensus is required before any decision is considered final, etc. The chair and the recorder for the meeting should be rotated amongst all members in order to equalize power amongst all members. [Ref 2]

The implementation of TQL brings with it the requirement for new skills. The use of SPC requires classroom training and application of training in order to be learned. The application of SPC training requires new behaviors: communication, group interaction and group decision making. To learn new behaviors, they must be practiced. It is unreasonable to expect personnel to read a book or attend a class and then just implement TQL because TQL requires learned behavior. After introduction to the concepts, the behavior must be practiced in an atmosphere conducive to learning.

(2) NCTS CONUS' Skill Develop. The TQL training that upper management received only introduced them to the concepts of TQL. There was no opportunity or time to learn the behaviors necessary to support SPC. When NCTS CONUS recreated their command structure with all its expectations

and roles in the TQL structure, they did not create an atmosphere conducive to learning because all of the same fears and risks associated with innovative behavior that existed in the command organization existed within the parallel structure. The Facilitator assigned to the QPIC was the command TQL coordinator, a mid-grade civilian unable to facilitate group discussion that was highly charged with emotion amongst top and upper management. No internal operating rules were developed to support the Facilitator or guide the group. In an effort to make sense of it all, the CO stepped in and took charge as his training and role command organization dictated that he should. In assuming the mantle of authority, he made it certain that new and, therefore, risky behaviors would not be attempted.

(3) Developing the Skills. Additional training is necessary for upper management to refresh them since their last training and to expand their knowledge base about TQL beyond what they have begun to assume based on its implementation in this dysfunctional manner. Facilitators for the QPIC should be selected from the ranks of the Department Heads and trained. The Facilitators chosen should be strong personalities, mature and capable of constructively managing conflict without discouraging discussion. More than one person should be trained so that one person does not end up bearing the responsibility for dealing with the strong

emotions that are sure to surface as the group once again attempts to reach a consensus on the issues that divide them.

Rules for the internal operations of the QPIC need to be developed by the QPIC on how business is to be conducted in the group. Development of the rules by the QPIC would serve as an excellent team building exercise for the group. The rules and the rotation of duties should remove uncertainty from the conduct of the meetings and put everyone on an equal footing allowing the group a forum for the free flow of ideas without the barriers created by territorial struggles. Rules would also make it clear to all on the QPIC that there will be no central decision maker and that rather than passively sitting by while someone else makes the decisions, all members will be expected to participate and all will have the opportunity to do so.

e. Develop Constancy of Purpose

(1) The Intent of Constancy of Purpose. Constancy of purpose is required through upper levels of management to ensure that all know and understand the organization's focus in dealing with both short term and long term problems. A constancy of purpose focuses on long range planning for the organization because long range planning can reduce the uncertainty of the future. In order to develop constancy of purpose, the entire organization must know where it is headed and have a total quality effort in place demanding planning

and continuous process improvement. [Ref 5:p. 24-25, 98] In other words, constancy of purpose recognizes that there will always be occasions of crisis (special causes) but that crises do not drive the organization; long range planning through a total quality effort does.

(2) The Constancy of Purpose Developed at NCTS CONUS. A constancy of purpose is spread throughout the organization based on what management communicates to the organization about what is important. At NCTS CONUS, the one thing that has been communicated throughout the organization is the importance of territories and boundaries within the command. The territorial battles between the XO and TD are well known throughout the command. When the TQL structure was designed, the QMBs were defined along lines of authority designed to protect individual territories vice being defined along process lines. The QPIC assigned itself as the QMB for any PIF crossing departmental lines. Obviously, not every PIF will cross all department lines but this action ensures that no one will be left out should a PIF inadvertently cross a department line. The incident during the QPIC meeting in which one department head reported action on a PIF that was perceived as overstepping the bounds of authority drove home to all QPIC members the importance of individual territories. These territorial behaviors reflects tremendous resistance to the uncertainties of TQL.

The only way to reduce resistance is to reduce uncertainties. Previously recommended actions--establishment of common values, norms and procedures, correction of the dysfunctional command structure, achieving Critical Mass, developing mission and vision statements, obtaining additional TQL training and establishment of internal rules for the TQL structure that will encourage the usage of new skills--will help to cut down on much of the uncertainty. To cement these words with action and communicate the new mindset to the organization, the QPIC needs to turn its attention to restructuring of the TQL organization as recommended. This will send a new message through the command that focuses on task rather than territories.

4. Spread Revitalization Throughout the Organization Without Directing It

a. Upper Management's Role in Spreading Revitalization

Eventually, the parallel structure and the command organization must interact. It is possible that the interaction between the two will result in conflict because of their distinctly different ways of doing business [Ref 2]. The interaction may require departments to "rethink their roles and authority in the organization" [Ref 12:p. 163]. Upper management should not direct how conflict should be resolved and what form their department's role and authority

will take. If upper management direct these types of things they force their own understanding of the parallel structure on the organization beneath them when the organization, itself, must come to grips with its own understanding of the parallel structure and how it fits into the department. [Ref 12] In other words, if the understanding is forced, those on whom it is forced will feel a loss of control and react to that loss of control by resisting the change [Ref 16]. Upper management must lead their departments through the same change process that they have come through first developing an understanding of why change must occur through a joint diagnosis of their situation, then forming a shared vision, etc. Because the vision that they develop will be theirs, personnel in departments will be committed to learning and applying the new skills [Ref 12].

b. Spreading Revitalization in NCTS CONUS

The departments at NCTS CONUS have been subjected to a lot of conflict and turmoil that created a lot of uncertainty. They may be playing the game but for the most part they don't truly believe that TQL is going to last beyond the current CO. People are skeptical and that skepticism will be very difficult to overcome.

The slowness with which the AWS PAT has proceeded has been apparent and has built greater skepticism in the command towards TQL. There is no way that the AWS issue can

be dropped without building skepticism to a level that may be unsurmountable. There are things that can be done to speed it towards a conclusion. Originally, the QMB for the AWS PAT was the QPIC and the AWS PAT was given no time bounds. The QPIC should assign a QMB for the AWS PAT and working with the QMB develop goals toward which they should be working. The QMB can examine the AWS issue and break it down into pertinent areas for investigation. Additional PATs could be assigned to help collect the necessary data. This would speed the data collection and involve other command members promoting communication, interaction and teamwork. Each newly formed PAT should be given specific guidelines for data presentation and adequate time for gathering data.

Perhaps the best way to overcome the skepticism is by simply allowing the TQL structure to work. As the QPIC identifies customer needs, QMBs will need to be formed along process lines. Together, the QPIC and the QMB will translate customer needs into goals and customer specifications. The QMB would take this information and begin examination of the system to determine critical processes in the production of a quality product or service for the customer and only after identifying the most critical processes would potential improvements to the processes become subject for discussion. Once the potential for improvement and the need for improvement is established, the QMB can commission a PAT to begin to collect data on one simple, highly visible process.

By following these general steps, the next "first" process will be tied directly to the command's mission and will be much easier for all to support. It will have a greater sense of urgency to it making time bounds understandable and important. By keeping it simple, the purpose of group activities, learning new behaviors, can be accomplished while still allowing group members to develop a sense of accomplishment and pride in their work by improving the process. The real benefit, however, will be achieved when command personnel actually see the new philosophy at work and skepticism will eventually begin to break down.

5. Institutionalize Revitalization

Institutionalizing or formalizing changes ensures that changes made will continue, independent of personalities. Timing of the formalization of changes is important to ensure that the changes that are formalized are in fact the changes that are desired and that the resources are available to make the changes effective [Ref 12]. Not all changes will be changes for the good and the organization may not want to formalize them as they are first presented. Modifications may be necessary. The parallel structure will make mistakes as it learns and the command organization must allow it time to experiment until the right answer is found. Formalizing changes too early would result in unnecessary pressures on the parallel structure while slowness to formalize changes could

be interpreted as management's lack of commitment. Timing of the formalization of changes, then, is important. [Ref 2:p. 136-137]

Many of the changes made to the command organization and PIF processing procedures can be formalized. It may be prudent, however, to wait before formalizing others. For example, changes made to the TQL organization make sense in theory but need experimentation to ensure that they are the right move for this organization. Some may be right and others may need adjustment. If they are formalized to early and have to be repeatedly changed, members of the command may react negatively to the uncertainty and confusion produced by too frequent changes. On the other hand, changes that are formalized too slowly, might be interpreted as being reflective of upper management's inability or unwillingness to support TQL. Each change must be examined prior to formalization and a determination made as to whether or not further experimentation is necessary. Once SPC is instituted, changes to processes will be supported by data and the data will indicate if further adjustments are indicated before formalization.

6. Monitor Revitalization Efforts and Adjust Strategy as Needed

The QPIC is the entity responsible for strategic planning for the implementation of TQL [Ref 6:p. 5]. The QPIC

needs to ensure that mechanisms are in place to ensure that the implementation is continually monitored. As problems are encountered, implementation strategies need to be adjusted [Ref 12].

The concept of strategic planning on a continuous basis has not been grasped by the QPIC. An attempt has been made to evaluate the command's current situation with the administration of the DOD Self-Assessment Survey. While that is good and may be of some assistance in determining the current situation, there is no strategic plan against which the results of the survey can be compared. The QPIC should plan to use the results of this DOD Self-Assessment Survey as a benchmark in assessing progress in the future. In the meantime, they should develop an implementation plan extending well into the future.

VI. CONCLUSION

The original intent of this thesis was to study the implementation of TQL in a naval telecommunications environment. NCTS CONUS was, however, in such a state of conflict that, in order to study the implementation of TQL, the conflict stemming from the merger had to be analyzed. The organizational context became very important in the study of the implementation of TQL.

Top management must consider the organizational context in implementing TQL. If there are problems in an organization, the implementation of TQL will only bring those problems to the forefront. The closer the problems are to core values and the greater the number of problems, the greater the resistance to TQL. If top management desires to maximize the effectiveness of TQL, then pressing organizational problems must be resolved prior to initiating TQL or top management must be prepared to confront the problems within the framework of TQL.

In confronting problems within the framework of TQL, top management must recognize that conflict is not, in itself, negative and develop mechanisms for the constructive management of conflict. Managed conflict allows for the development of commitment to resolutions reached as a result

of group consensus. Group decision making does require more time than the authoritarian approach to decision making but, it is the group's commitment, reached as a result of the group decision making process, that is important.

TQL requires a team-based approach to resolving process oriented problems. A team must have the ability to make decisions as a group and a focus on a task in order to build commitment for maximum effectiveness. This team-based approach starts with top management in the joint diagnosis of the current situation and the development of a shared vision and a strategic plan for reaching the vision. The commitment to the shared vision amongst top managers is developed as a result of the group decision making process. The importance of top management's commitment to a shared vision cannot be underestimated.

APPENDIX A

01 JUL 1991

NAVCOMTELCOM INSTRUCTION 5200.2

Subj: TOTAL QUALITY LEADERSHIP (TQL)

Ref: (a) SECNAVINST 5200.31B
(b) Executive Order 12637 of 27 Apr 88
(c) OMB Circular A-132 of 22 Apr 88
(d) CNO memo Ser 00/0U500214 of 13 Aug 90 (NOTAL)
(e) OPNAVINST 5450.227

Encl: (1) TQL "How to Manual" (Not Included)

1. Purpose. To implement policy for TQL within the Naval Computer and Telecommunications Command (NAVCOMTELCOM) and its field activities.

2. Cancellation. NAVDACINST 5200.3.

3. Background. Reference (a) is the Department of Navy's (DON) policy guidance on TQL, formerly referred to as Total Quality Management (TQM). References (b) and (c) establish a government-wide program to improve the quality, timeliness, and efficiency of services provided by the Federal Government. Reference (d) establishes TQL as the approach for implementing TQM in the Navy's operating forces.

4. Program Objectives

a. Achieve unity of purpose by all NAVCOMTELCOM military, civilian, and contractors in executing the command's mission stated in reference (e).

b. Develop a "quality culture" command-wide.

c. Establish annual TQL goals to promote the timely delivery of high quality, cost-effective products and services command-wide.

d. Enhance the quality of working life of the military and civilian work force by establishing incentives, eliminating barriers to productivity, and improving working site conditions.

e. Promote continuous process improvement through use of total employee involvement.

f. Establish measures of quality to quantify organizational improvement.

5. Discussion

a. TQL supports all improvement initiatives, such as quality of work life, environmental responsibility, productivity improvements, cost and schedule control, and rework reduction. TQL focuses on continuous process improvement. The TQL strategy is built on the basic premise that we continually seek improvement through the creative involvement of all people. TQL involves everyone, in an organized way, in improving what we do.

b. The TQL process includes short-range and long-range improvement efforts. With hard work and continuous change by all personnel, TQL will become a way of life and not just another government program.

6. Applicability. This guidance applies to all personnel command-wide.

7. Goals

a. Establish and pursue programs to improve quality and productivity.

b. Stimulate acknowledgment of quality performance at all levels.

c. Encourage and reward improved productivity through employee involvement.

d. Create an atmosphere which encourages employee involvement to meet the NAVCOMTELCOM mission of providing, operating, and maintaining, as required, all Navy ashore communications resources and all non-tactical information resources for command, control, and administration of the Navy and those elements of the Defense Communications System assigned to the Navy.

e. Develop methods to measure customer satisfaction, product quality and timeliness to include identification of:

(1) Customers (internal and external) receiving the products or services.

(2) Quality indicators to measure the degree to which the output (product or service) conforms to customer requirements, and meets or exceeds their expectations.

(3) Timeliness indicators to measure the time required to provide the products or services.

8. Responsibilities. Commanding Officers (COs) will maintain full responsibility for complying with all policies and actions contained in references (a) through (d).

9. Action

a. Activity COs, NAVCOMTELCOM Headquarters Assistant Chiefs of Staff, and special staffs will:

(1) Ensure continuous, obvious, top level commitment to the TQL process strategy.

(2) Ensure TQL strategies are addressed in activity and/or Headquarters' program and planning guidance, and that adequate resources are allocated to support these issues.

(3) Take steps to promote continuous process improvement, productivity measurement, evaluation, and action as an integral part of planning and management systems. The improvement of productivity is an inherent and continuing responsibility of all managers.

(4) Ensure the TQL organization is in place, i.e., Executive Steering Committee (ESC), Quality Management Boards (QMBs) and Process Action Teams (PATs).

(5) Establish and implement PATs composed of a cross-section of employees to resolve problems at the activity. Each team should have sufficient authority to take positive action to improve the process or resolve the problem(s). See enclosure (1) for guidance in establishing PATs.

(6) Take action to expand productivity measurement to all products and services provided to internal and external customers.

(7) Implement TQL training that ensures adequate training for all employees. Enclosure (1) contains minimum TQL training requirements.

(8) Implement an Ideas Handling Program that places emphasis on employee participation. Ensure that ideas are tracked monthly as to the number received and number implemented. The results of the Ideas Handling Program should be displayed within the activity. Visibility of results of the program will encourage employees to participate.

(9) Ensure quality is included in all supervisors' performance evaluations.

b. Commander, Naval Computer and Telecommunications Command will:

(1) Establish a claimancy Executive Steering Committee (ESC), formerly known as the Quality Productivity Improvement Council (QPIC).

(2) Provide overall TQL guidance and advice.

(3) Monitor and evaluate TQL progress and measure performance trends.

(4) Ensure uniformity in evaluation and interpretation of TQL statistics for purposes of reporting or determining resource requirements.

(5) Evaluate TQL information and provide feedback to field activities and headquarters staff.

(6) Consolidate activity TQL progress submissions and report quarterly to the Office of the Under Secretary of the Navy for TQM/Productivity on NAVCOMTELCOM progress. Prepare special TQL reports as requested.

10. Conclusion. Crucial to the success of the DON's TQL strategy is top management leadership, employee participation, and a long-term commitment to continuous improvement. Activities' ESCs will fully support the DON TQL guiding principles:

We will accomplish the mission.

We recognize the central fact that our Sailors and Marines are the best prepared and that our units have the highest rates of operational readiness in our history. They are at the heart of our ability to perform the mission. We must maintain that quality.

We are all responsible for accomplishing the mission. That is our first loyalty. We must strive to find new ways to

cooperate within the DON which look beyond a single service warfare community or traditional role and responsibility. Pride, professionalism and a sense of community are extremely important but we must ensure that they are not rigid barriers to our interoperability. The valuable process of competing for resources and roles must not be carried to divisive and destructive extremes.

We accept responsibility for taking control of and improving all the systems and processes through which we support Sailors and Marines. We can ensure that the weapons, ammunition, training, transport, health care, housing and all other goods and services which constitute that support are of predictable high quality and available on time and in sufficient quantity for any task they may be called upon to perform.

We must use innovation to meet current and future requirements and challenge ourselves to develop creative methods, including new technologies, to enhance our support to our operating forces.

We are committed to honesty and integrity, recognizing that the public trust and defense of the nation require the highest standards of moral conduct. By integrity we mean that we will make decisions which are in the best interests of the Navy, the Marine Corps and the nation without regard to personal consequences.

We have adopted the term Total Quality Leadership (TQL) as the general term under which we will pursue total quality efforts. However, we understand that it is the concepts and content of those efforts that is important--not what they are called.

11. Reports. Commanding Officers will comply with reporting requirements listed below:

a. A quarterly report of TQL accomplishments is due to NAVCOMTELCOM Code N1A on the first of December, March, June, and September. These reports will be consolidated and forwarded quarterly to the Under Secretary of the Navy for TQM/Productivity.

b. Quarterly reports should be in narrative form and cover the status of the Productivity Gain Sharing Program, Value Engineering Program, the Productivity Enhancing Incentive Fund

(PEIF) program, TQL training, suggestions, employee incentive programs and other TQL accomplishments.

K. L. LAUGHTON

Distribution List:
SNDL FE4 (NAVSECGRU ADAK only)
FG2 (Communication Stations)
FG3 (Communication Units)
FG5 (Radio Stations)
FG6 (Communication Area Master Stations)
FG9 (Headquarters Navy-Marine Corps MARS Radio Station)
FG10 (AUTODIN Switching Center)
FL4 (Navy Regional Data Automation Centers)
CO, HQ Reserve Unit
NTSIC
NAVEMSCEN
NCMS

APPENDIX B

INTERVIEW PROTOCOL

1. What do you find most stimulating about TQL?
   a. Why do you think that it was decided to implement TQL?
   b. How did you decide what your first step would be in implementing TQL in your department? (Department Heads) ...in this command? (CO, XO, TD)
   c. What did you expect from TQL in the beginning?
   d. How has TQL met your expectations?
2. What has been most challenging about putting TQL into effect? ...in the implementation process so far? (Department Heads, CO, XO, TD)
   a. What kinds of problems did you anticipate in implementing TQL? (Department Heads, CO, XO, TD)
   b. How did you plan to overcome those problems? (Department Heads, CO, XO, TD)
   c. How were the problems that you anticipated the same as or different from those you experienced? (Department Heads, CO, XO, TD)
   d. Can you generally isolate the paygrade or group of people who have had the most difficulty understanding TQL? (Department Heads, CO, XO, TD)

e. What has been hardest for others?

f. What would have helped?

g. What has been easiest?

h. How do people behave differently now that you have TQL?

3. How did you see your role in the implementation process?

   a. What personal or professional benefits/rewards exist for you to cause you to want to participate in TQL?

4. TQL takes a lot of time and money to implement. How has that effected you and your work center? ...your department? (Department Heads) ...this command? (CO, XO, TD)

   a. What benefits have you experienced so far?

   b. How does TQL effect the way you do your job?

5. How have (and what) events and actions outside your work center affected the use of TQL?

   a. What support do you need to make TQL successful in your work center? ...your department? (Department Heads) ...your command? (CO, XO, TD)

   b. What do you see that needs to be done that nobody else understands?

   c. What would you like to see happen to help others to understand?

   d. What would you do (or like to see done) differently if everything could start over?

6. What are you accomplishing with TQL?

a. What do you expect from TQL now that you've had some experience with it?

b. What is the most positive thing that has happened with TQL?

7. What one thing would you like for me to understand about this command and TQL?

APPENDIX C

THE TQL IMPLEMENTATION PROCESS

17 December 1990: CO's memo, Attachment 1, distributed to all hands introducing definition of TQL, key conceptual elements of TQL, PDCA cycle, Benefits of TQL, costs/requirements of success with TQL, Barriers to transformation, and strategies for successful implementation.

03 January 1991: CO's memo, Attachment 2, distributed to all hands globally defining TQL and introducing concept of an activity credo.

January 1991: Training for QPIC members presented by Quality Alert Institute, Inc.

06 February 1991: First QPIC meeting held. TD absent. Meeting chaired by a Department Head. TQL Organization approved. Format for command TQL newsletter approved.

11 February 1991: First TQL newsletter published. Related establishment of QPIC and Newsletter. Discussed communications and Quality Improvement Cycle.

12 February 1991: CO's memo, Attachment 3, to all hands summarized QPIC meeting minutes, provided TQL Organizational Structure and billet descriptions for TQL organizational positions.

20 February 1991: QPIC meeting held to address training of more organization members in preparation for roles as on-

site TQL Facilitators and Trainers. TD absent. Meeting chaired by a Department Head. TQL vendors reviewed and decision made to stay with Quality Alert Institute. Nominees for Facilitator and Trainers made. Decided that Trainers will also serve as Facilitator.

05 March 1991: QPIC meeting held. Chaired by Department Head. Facilitators (five) and Trainers (four) selected. "Go-slow approach" adopted in implementation process.

12 March 1991: QPIC meeting held. Chaired by Department Head. High cost of Facilitator/Trainer training discussed. Decided to poll other commands for more participants. TQL organization responsibilities and Implementation Process package reviewed. PAT meetings/activities limited to one hour per week. All Hands Awareness training agreed to be scheduled over several months. Format of Productivity Improvement Forms (PIF) discussed.

19 March 1991: QPIC meeting held. TD absent. Meeting chaired by CO. Facilitator/Trainer training schedule approved. Awareness training set for July time frame. Draft of PIF submitted for individual review and comment.

22 March 1991: Newsletter published list of personnel selected for TQL Facilitator/Trainer.

23 April 1991: QPIC meeting held. TD absent. Meeting chaired by CO. Facilitator/Trainer schedule promulgated. CO requested to meet with Facilitator/trainers prior to training. Format for Productivity Improvement Forms (PIF) approved.

Schedule for TQL Awareness Training approved. Distribution of TQL Notice planned for 01 Jul 91.

01 May 1991: Newsletter published list of TQ books available for check out. Discussed role of QMB and PAT.

14 May 1991: QPIC meeting held. TD absent. TQL Training quantified at $4500/hr revenue lost. Proposed NCTS Notice distributed for review. First Process for study was tentatively approved to be Alternative Work Schedules (AWS) with QPIC acting as QMB.

28 May 1991: QPIC meeting held. TD absent. AWS as first process to study was approved. Department Head selected to meet one on one with QPIC members to get input for selecting participants and setting bounds for PAT. Training of remote sites discussed.

18 June 1991: QPIC meeting held. TD absent. Charter for PAT assigned to Department Head for development. TQL Coordinator to pull together AWS information package for PAT.

01 July 1991: Newsletter published first process selected for study and PAT members' names.

12 July 1991: QPIC meeting held. TD absent. Membership of PAT published. PAT's draft charter presented for review.

13 August 1991: QPIC meeting held. CO absent. Meeting chaired by XO. Discussion on EIG, PIF tracking, NCTS CONUS TQL Instruction and PAT's charter.

23 August 1991: QPIC meeting held. TD absent. Awareness Training Feedback discussed. Process for handling

Productivity Improvement Form finalized. Notification requirements for formation of other PATs established. AWS PAT meeting hours increased to two hours/wk. Requirement for Dept Directors to notify TQL Coordinator of membership of EIGs and QMBs disclosed.

31 August 1991: NCTS CONUS TQL Instruction published, Attachment 4.

01 September 1991: Newsletter published Bravo Zulu to Trainers on design of curriculum for all hands Awareness Training and completion of training of all personnel. PIF submission and process procedure published.

02 October 1991: QPIC meeting held. QMB and EIG memberships reviewed. Remote site processing of PIFs established. PIF tracking system discussed. Action on PIFs submitted from throughout command discussed. PAT established to examine check in/out procedures. NCTC TQL Instruction reviewed. Other possibilities for PAT efforts suggested and discussed.

01 November 1991: Newsletter published membership of QMBs and EIGs as well as AWS PAT update.

05 November 1991: QPIC meeting held. TD absent. Distribution of DOD Quality and Productivity Self-Assessment Survey discussed. Status of PIFs reviewed and will be posted on E-Mail Bulletin Board and POD. Statistical Process Control video planned for next meeting.

December 1991: DOD Self-Assessment survey administered.

ATTACHMENT 1

17 Dec 90

MEMORANDUM

From: Commanding Officer

Subj: TOTAL QUALITY LEADERSHIP (TQL)

1. TQL is coming, and I need your help and support to gain benefits from it. TQL supports ALL improvement initiatives, such as quality of work life, process improvements, rework reduction and improved customer service. TQL focuses on continuous process management with a strategy of continually seeking improvement through the creative involvement of ALL personnel.

2. The most important aspect of this crucial effort is support from the top. And let me assure you, both ADM Tuttle and CAPT Laughton are strong supporters of TQL. I am on board and ready to lead a team effort. Let's make it happen together.

3. Obviously, this effort will not be completed overnight. We need to recognize that this will be a LONG-TERM commitment which will take time to implement fully. We will be starting shortly with awareness and "how-to" training. Stay tuned.

4. Attached is some information to reacquaint you with TQL.

Distribution:
List B
List C

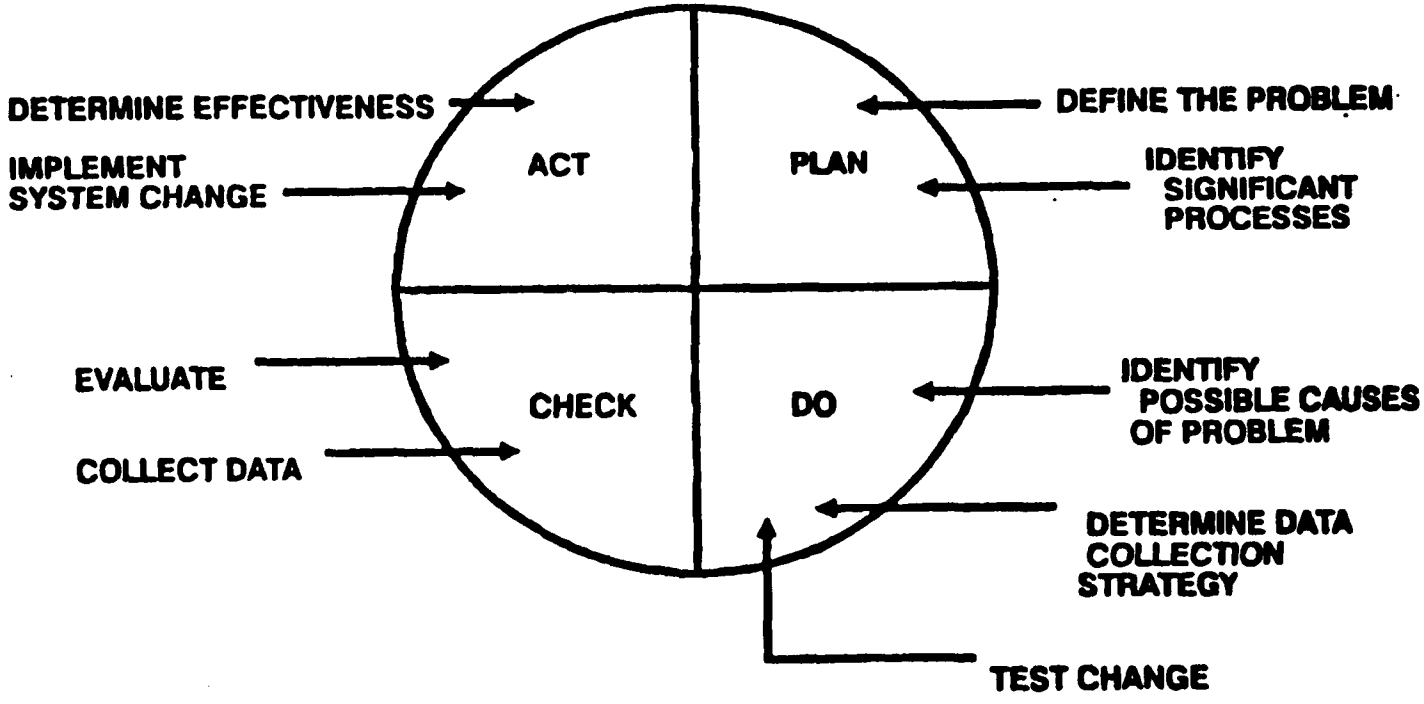
WHAT IS TOTAL QUALITY LEADERSHIP?

TOTAL QUALITY LEADERSHIP IS A CUSTOMER ORIENTED, QUALITY FOCUSED MANAGEMENT PHILOSOPHY THAT APPLIES LEADERSHIP, TRAINING AND MOTIVATION TO CONTINUOUSLY IMPROVE PROCESSES. THE QUALITY LEADERSHIP CONCEPT DEMANDS SUSTAINED TOP MANAGEMENT LEADERSHIP AND CONTINUOUS EMPLOYEE INVOLVEMENT. A BASIC PRINCIPLE IS THAT QUALITY IS MANAGEMENT'S RESPONSIBILITY, ESPECIALLY TOP MANAGEMENT, AND IT CAN NOT BE EVADED.

KEY CONCEPTUAL ELEMENTS OF TQL

- UNITY/CONSTANCY OF PURPOSE
- MANAGEMENT COMMITMENT, LEADERSHIP, PARTICIPATION
- CONSISTENT APPROACH TO IMPROVEMENT
- CUSTOMER FOCUS - INTERNAL AND EXTERNAL
- OBSESSION WITH QUALITY
- EXAMINING PROCESSES FOR IMPROVEMENT OPPORTUNITIES
- TEAMWORK
- EMPLOYEE PARTICIPATION/EMPOWERMENT
- ENABLING STRUCTURES TO PROMOTE TRANSFORMATION
- CONTINUED "JUST IN TIME" EDUCATION AND TRAINING

THE "P-D-C-A" IMPROVEMENT CYCLE



HOW TOTAL QUALITY LEADERSHIP EFFECTS AN ORGANIZATION

- IMPROVED PRODUCTIVITY - DOING THE RIGHT THINGS RIGHT THE FIRST TIME
- IMPROVED LINES OF COMMUNICATION BETWEEN SUPPLIERS, SERVICE PROVIDERS, AND CUSTOMERS
- IMPROVED UNDERSTANDING OF, AND IDENTITY WITH, THE ORGANIZATION AND ITS MISSION
- IMPROVED RELATIONSHIPS THROUGHOUT THE ORGANIZATION
- IMPROVED EMPLOYEE MORALE THROUGH PARTICIPATION; INCREASED PRODUCTION OF IDEAS AS WELL AS EFFORTS

COSTS/REQUIREMENTS FOR SUCCESS

- ACTIVE MANAGEMENT LEADERSHIP, PARTICIPATION AND SUPPORT
- TIME AND RESOURCES COMMITMENT:
  - Development, implementation, and administration
  - Substantial education, orientation, and training for all employees
  - Accurate and timely production/cost data collection and analysis
- SHIFT TO A PARTICIPATIVE MANAGEMENT PHILOSOPHY; INCREASED EMPLOYEE PARTICIPATION IN DECISION-MAKING
- STRUCTURES WHICH REQUIRE OPEN COMMUNICATION, INFORMATION SHARING, AND FEEDBACK

BARRIERS TO QUALITY TRANSFORMATION

- "WE DON'T HAVE TIME TO IMPROVE!"
- "HANDLE IT, HANDLE IT!" - WHO OWNS IT?
- "SO, SHOW ME SOME RESULTS!" or "YOU WANT IT WHEN?"
- HOW DO YOU EAT AN ELEPHANT?
- "CAN WE TALK?"
- THE UNTIMELY, BUT ULTIMATELY CERTAIN DEMISE OF "JUST ANOTHER UFGP"

STRATEGIES FOR SUCCESS

PHASE 1:

- **EDUCATE YOURSELF IN TQL PHILOSOPHY AND TECHNIQUES**
- **EMBRACE THE PHILOSOPHY AND BECOME COMMITTED TO ITS PRACTICE**
- **REWARD DESIRED BEHAVIORS IN OTHERS TO REINFORCE PRACTICE**

STRATEGIES FOR SUCCESS

PHASE 2:

- **REACH CONSENSUS WITH OTHER MANAGERS ON THE NEED TO CHANGE**
- **FORMULATE/REVISE ORGANIZATIONAL PHILOSOPHY AND MISSION STATEMENTS WHICH SUPPORT TOTAL QUALITY LEADERSHIP PHILOSOPHY AND PRACTICE**
- **DEVELOP A LONG RANGE STRATEGIC PLAN WHICH REFLECTS MANAGEMENT'S VISION FOR THE ORGANIZATION'S FUTURE**
- **TARGET INITIAL AREAS/KEY PROCESSES FOR IMPROVEMENT AND DEVELOP A 2 YEAR STRATEGIC PLAN OF ACTION**

STRATEGIES FOR SUCCESS

PHASE 2 (cont):

- **ESTABLISH THE ORGANIZATION'S TQL INVOLVEMENT STRUCTURE**

- **TRAIN A CORE GROUP OF FACILITATORS TO PROVIDE TRAINING AND GUIDANCE TO ORGANIZATIONAL MEMBERS**

- **PRACTICE A PARTICIPATIVE STYLE OF MANAGEMENT:**
  - **Use positive reinforcement; treat people with respect**
  - **Ask for input prior to decision making and provide timely information/feedback**

STRATEGIES FOR SUCCESS

PHASE 3:

- **PROVIDE/PARTICIPATE IN ON-GOING "JUST IN TIME" TRAINING FOR EVERYONE IN THE ORGANIZATION**

- **BREAKDOWN BARRIERS:**
  - **Identify informal networks; Create emotional acceptance**
  - **Approach change like a courtship - slowly and with a sense of surprise**
  - **Anchor the change with a network of support and build a critical mass committed to the quality effort**

- **EXPAND THE EFFORT, REINFORCE REMOVAL OF BARRIERS THROUGHOUT THE ORGANIZATION**

ATTACHMENT 2

DEPARTMENT OF THE NAVY

IN REPLY REFER TO

3 January 1991

MEMORANDUM

From: Commanding Officer

Subj: TOTAL QUALITY LEADERSHIP (TQL) #2

Encl: (1) Activity TQM Credo

1. TQL is a strategy for continuous improvement of work processes and to enhance the quality of service and products we provide our customers (whoever they may be). The principles of TQL embrace doing the right things, and doing them right the first time. TQL encourages the participation of all employees: to foster a quality focused environment.

2. As such, the principles of TQL (or TQM) can be implemented in any activity. Enclosure (1) is a TQM Credo for an "unnamed activity". With the change of only a few words, this could just as well be ours. I intend to establish our own "Credo". Be thinking about what it should be.

3. By the way, any guesses on who this mystery activity is?

Distribution:
List B, List C

TQM CREDO

MISSION: To improve continually our products and services to meet our customers' needs, allowing us to prosper as a business.

VALUES:

People. Our people are the source of our strength. They provide our corporate intelligence and determine our reputation and vitality. Involvement and teamwork are our core human values.

Products. Our products are the end result of our efforts, and they should be the best in serving customers worldwide. As our products are viewed, so are we viewed.

Profits. Profits are the ultimate measure of how efficiently we provide customers with the best products for their needs. Profits are required to survive and grow.

GUIDING PRINCIPLES:

Quality comes first. To achieve customer satisfaction, the quality of our products and services must be our number one priority.

Customers are the focus of everything we do. Our work must be done with our customers in mind, providing better products and services than our competition.

Continuous improvement is essential to our success. We must strive for excellence in everything we do; in our products; in their value, and in our services, our human relations, our competitiveness and our profitability.

Employee involvement is our way of life. We are a team. We must treat each other with respect and trust.

Dealers and supplies are our partners. We must maintain mutually beneficial relationships with dealers, suppliers and other business associates.

Integrity is never compromised. The conduct of our company worldwide must be pursued in a manner that is socially responsible and commands respect for its integrity and for its positive contributions to society. Our doors are open to men and women alike without regard to ethnic origin or personal beliefs.

Enclosure (1)

ATTACHMENT 3

N00
12 Feb 91

MEMORANDUM

From: Commanding Officer

Subj: TOTAL QUALITY LEADERSHIP (TQL) #4

Encl: (1) TQL Organizational Structure
(2) TQL Terminology

1. The first Quality/Productivity Improvement Council (QPIC) meeting was conducted on 6 February 1991. A summary of the minutes is as follows:

a. A TQL organization chart was presented and approved, a copy of which is enclosure (1).

b. The following TQL formal training is still to be conducted:

(1) QPIC - 1 day
(2) Facilitator
(3) Trainer
(4) All Hands Awareness

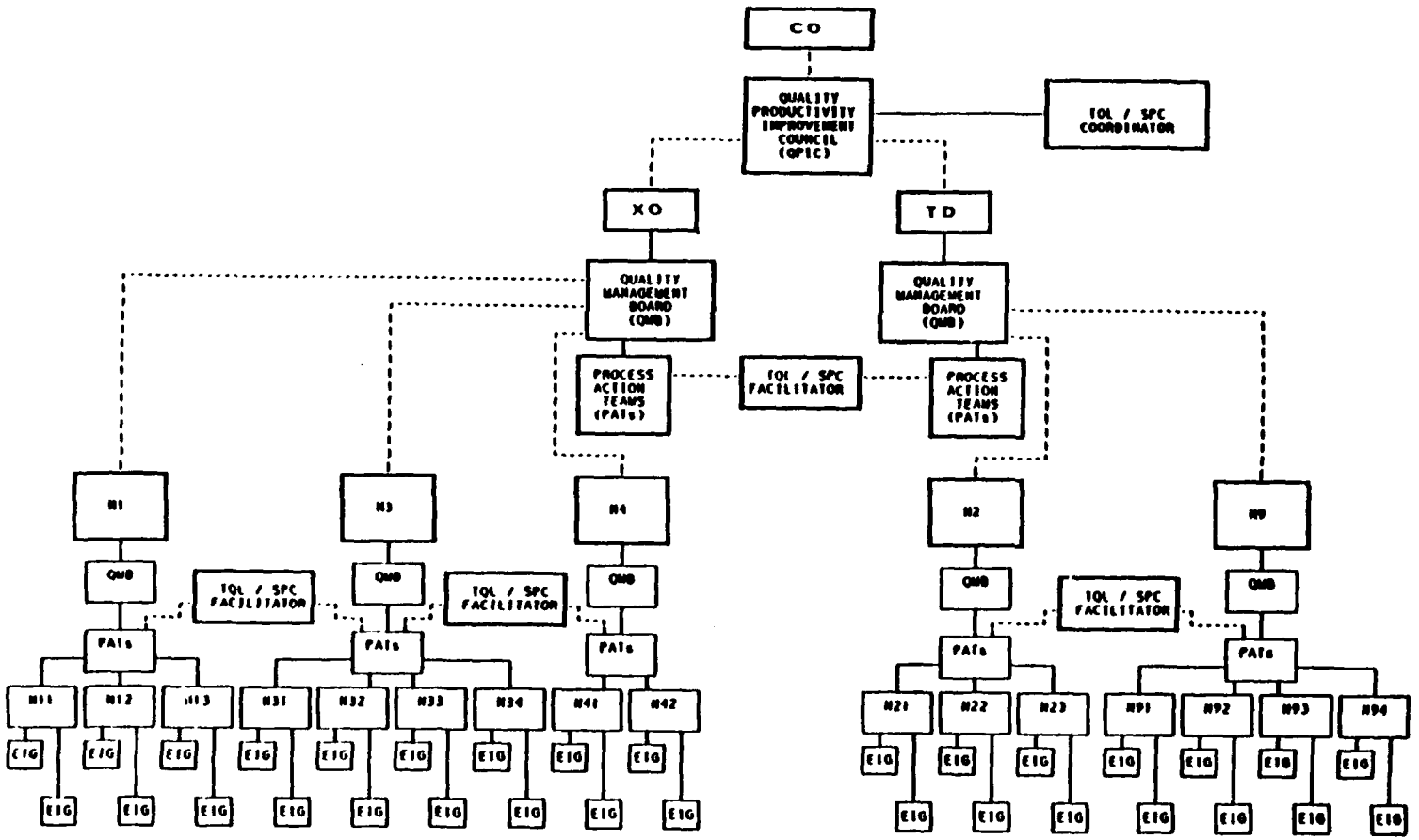
c. Nominees for Facilitators and Trainers will be presented at the next QPIC meeting 20 February.

d. A draft of The Quality newsLetter was presented and approved.

2. Enclosure (2) is a brief description of the TQL terms you have been hearing. They will be more fully covered in the when it is published, and they will be discussed at the various departmental staff meetings.

Distribution:
List E
List G

TOTAL QUALITY LEADERSHIP (TQL)
ORGANIZATIONAL STRUCTURE



EIG - EMPLOYEE INVOLVEMENT GROUP

TOTAL QUALITY LEADERSHIP (TQL) TERMINOLOGY

Employee Involvement Group (EIG) - A group of individuals acting as a team to identify issues, problems or processes requiring improvement. These teams may be grouped by function or organization and should be comprised of no more than 10 people. The processes in need of improvement and accompanying ideas identified by the EIG will be forwarded to the QMB for action via the supervisory chain of command. An EIG may be permanent, rearranged or combined with other EIGs as the situation dictates.

TQL Facilitators - In house personnel selected and trained to serve as consultants to the various QMBs and PATs.

TQL Trainers - In house personnel selected and trained to train employees in TQL Awareness and PAT and QMB procedures.

TQL Coordinator - This individual monitors, plans, and collects information about progress, assists with administrative arrangements, or whatever else may be needed to ensure implementation activities continue. The TQL coordinator is responsible for implementation of policy and operational initiatives pertaining to the overall TQL effort.

Performance Action Team (PAT) - The team is comprised of individuals working on a specific issue, problem or process. The teams are specifically formed to address a particular concern, and will dissolve on completion of their work.

Quality Management Boards (QMBs) - These boards represent all organizational levels and are linked by their senior members who are core members and stakeholders in the process. They provide the organizational structure that will eliminate friction between organizational units, and enable the use of group problem solving techniques. QMBs are permanent groups; they do not dissolve after problems are solved, but oversee continual process improvement.

Quality/Productivity Improvement Council (QPIC) - QPIC is chaired by the Commanding Officer and is composed of top level management representitives, and representitives of each department head. The QPIC will develop TQL philosophy and policy; develop a plan for TQL implementation; provide resource support; and identify and prioritize initial projects.

DEPARTMENT OF THE NAVY

IN REPLY REFER TO:

N00

30 AUG 1991

Subj: TOTAL QUALITY LEADERSHIP (TQL)

Encl: (1) Productivity Improvement Form (PIF)

1. Purpose. To disseminate information regarding Total Quality Leadership (TQL).

2. Background. TQL is a strategy for continuous improvement of work processes and to enhance the quality of services and products we provide our customers. The principles of TQL espouse doing the right things, and doing them right the first time. The use of TQL will enhance our ability to execute our mission, improve the allocation of resources, produce quality services and products, measure the quality of those outputs, and increase customer satisfaction. TQL encourages the participation of all personnel to foster a quality focused culture within the Navy. Simply put, TQL is teamwork. It allows the flexibility of turning a commitment into action, then into a result.

3. Definitions.

a. Quality/Productivity Improvement Council (QPIC) - The QPIC is made up of the Commanding Officer, Executive Officer, Technical Director, Department Directors, Command Master Chief, and TQL Coordinator. The primary role of the QPIC is to provide support and advice to the Command TQL Facilitators, Trainers, and the Quality Management Boards (QMBs). The QPIC will also assess all command policies and procedures for consistency with the quality improvement effort.

b. Quality Management Board (QMB) - QMBs consist of department/division supervisors and other designated personnel. QMBs are permanent groups; they do not dissolve but oversee continual process improvement.

c. Process Action Team (PAT) - PAT members are assigned by QMBs. The membership consist of a leader, personnel involved in the process being reviewed and a TQL Facilitator, as necessary. The personnel are chosen for their expertise and functional responsibility. PATs are assigned specific process(es) and should be provided specific improvement goals by the QMB.

d. Employee Involvement Group (EIG) - EIGs consist of no more than ten people grouped by function or organization. An EIG may be permanent, rearranged or combined as the situation dictates. The EIGs "brainstorm", seeking ideas that may be TQL process candidates.

e. TQL Facilitators - In-house personnel selected and trained to serve as consultants to the various PATs and QMBs.

f. Productivity Improvement Form (PIF) - The PIF (Enclosure (1)) is the formal vehicle to be used to identify processes needing study for improvement.

9 AUG

4. Action.

a. Commanding Officer will:

(1) Promote the continuous process, productivity measurement, evaluation, and action as an integral part of planning and management systems.

(2) Establish and implement employee recognition incentives that motivate employee participation in TQL efforts.

(3) Chair the QPIC.

(4) Ensure continuous top level commitment to the TQL process strategy.

b. Executive Officer and Technical Director will:

(1) Chair the respective Command QMB for the departments under their cognizance.

(2) Serve as members of the QPIC.

c. Department Directors will:

(1) Serve as members of the QPIC.

(2) Evaluate TQL information and provide feedback to personnel.

(3) Chair their respective Department QMB.

(4) Designate personnel to serve on the Department QMB and EIG groups.

(5) Serve on the appropriate Command QMB.

(6) Ensure approved PIFs are in compliance with the Collective Bargaining Agreement.

(7) Provide the Commanding Officer with departmental TQL status on a weekly basis.

d. Division Directors/Branch Heads/Supervisors will:

(1) Serve on the Department QMB as designated.

(2) Foster internal and external communication in their areas to affect process improvement.

e. Personnel will:

(1) Serve on a PAT, EIG, or QMB as designated.

(2) Promote continuous process improvement through the use of total employee involvement.

f. QPIC will:

(1) Communicate policy and assist in prioritizing quality issues when multiple and/or conflicting quality issues are identified by command groups.

(2) Develop communication links to keep all hands informed.

(3) Assume responsibility for and assign Process Action Teams (PATs) to issues which cross command organization lines.

(4) Ensure actions taken on PIFs are in compliance with the Collective Bargaining Agreement.

(5) Review all actions taken on PIFs.

g. Command/Departmental QMBs will:

(1) Review PIFs as applicable.

(2) Form a PAT when necessary and be responsible for its performance. In this capacity the Department QMBs will:

(a) Provide all necessary support for the PAT, its members, and its action.

(b) Provide a written statement of task.

(c) Advise the PAT of any special controls or constraints, i.e., statutory regulations.

(d) Require regular status briefs from PATs.

(e) Require PATs to gather data (if appropriate).

(f) Require recommendations and supporting data from PATs in writing.

(g) Act on PAT recommendations, or provide written reasons why recommendations cannot be adopted.

(h) Implement Statistical Process Control (SPC) wherever possible.

(i) Provide status briefs to the QPIC.

(j) Provide final PAT results to QPIC.

(k) Dissolve the PAT when its mission is complete.

(3) Notify the TQL Coordinator in the event a Facilitator and/or Trainer is required for the PAT.

h. PATs will:

(1) Evaluate systems and processes, and gather data. This data is analyzed to evaluate the system/process and measure improvement as changes are implemented.

(2) Provide status briefs to the QMB.

(3) Provide findings and recommendations to the QMB.

(4) Follow-up corrective action, gather additional data, and report improvements to the QMB.

i. EIGs will:

(1) Act as a team to identify potential processes for improvement.

(2) Serve as a point of contact for personnel to communicate potential process for improvement during staff meetings.

j. TQL Facilitators will:

(1) Act as TQL consultants to both QMBs and PATs.

(2) Help the PAT leader ensure total group participation, team building, good organization, use of pertinent analytical tools, and recognition for the group.

(3) Ensure TQL meetings remain focused and in keeping with the TQL process.

k. TQL Coordinator will:

(1) Monitor, plan, and collect information about progress and assist with administrative arrangements to ensure implementation activities continue.

(2) Be on the distribution list for minutes of all QMB meetings, all formal PAT reports, and other internal or external correspondence that is TQL related.

(3) Serve on the QPIC.

(4) Receive and serialize all PIFs.

(5) Ensure TQL information and PIF submissions are publicized.

(6) Be notified by the QMB in the event a PAT is formed and a Facilitator and/or Trainer is required.

(7) Submit quarterly and annual reports to COMNAVCOMTELCOM as required.

5. Productivity Improvement Form:

a. The PIF will be submitted and processed as follows:

(1) Personnel will submit the PIF to the TQL Coordinator. The PIF can be submitted anonymously, however it must contain a division code.

(2) The TQL Coordinator will assign a serial number and forward it on to the cognizant Department Director.

(3) The Department Director will take appropriate action or refer to the Department QMB.

(4) The Department QMB will take appropriate action, form a PAT, or refer to the Command QMB if the process crosses department lines.

(5) The Command QMB will take appropriate action, form a PAT, or forward on to the QPIC.

(6) The QPIC will be the final reviewing body.

(7) The Department Director will inform the submitter of action taken and provide recurring status.

b. Productivity Improvement Form, enclosure (1), will be stocked in the Personnel Services Division (N13) and will be available on the TQL Bulletin Boards.

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Productivity Improvement Form

I. To submit a productivity improvement idea to be studied for possible implementation:

a. Complete the Productivity Improvement Form through Part V, and

b. Submit the completed form to the TQL Coordinator.

II. Process Short Title: _____

The proposed idea will (check as many as apply):

- ☐ Reduce Labor Cost
- ☐ Improve Product Quality
- ☐ Reduce Supply Cost
- ☐ Reduce Maintenance Cost
- ☐ Improve Office Procedures
- ☐ Reduce Equipment Cost
- ☐ Improve Customer Satisfaction
- ☐ Save Energy
- ☐ Miscellaneous Explain: _____

III. Explain the current process and its problems. Explain proposed improvement. (Attach additional sheets or sketches as necessary.)

IV. If submitted under the Beneficial Suggestion or MILCAP Program:

Date: Number:

V. Submitted by:	Division:	Date:

For Work Group Use Only

VI. Department Director Action: Date:

☐ Accept ☐ Refer to Dept QMB ☐ N/A

☐ Decline ☐ Further Study Required

Reason(s):

VII. Department QMB Action: Date:

☐ Accept ☐ Refer to Command QMB

☐ Further Study Required ☐ Decline

Reason(s):

VIII. Command QMB Action: Date:

☐ Accept ☐ Further Study Required ☐ Decline

Reason(s):

IX. QPIC Review: Date:

☐ Accept ☐ Further Study Required ☐ Decline

Reason(s):

Action Completion Date:

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